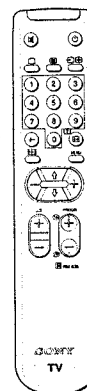
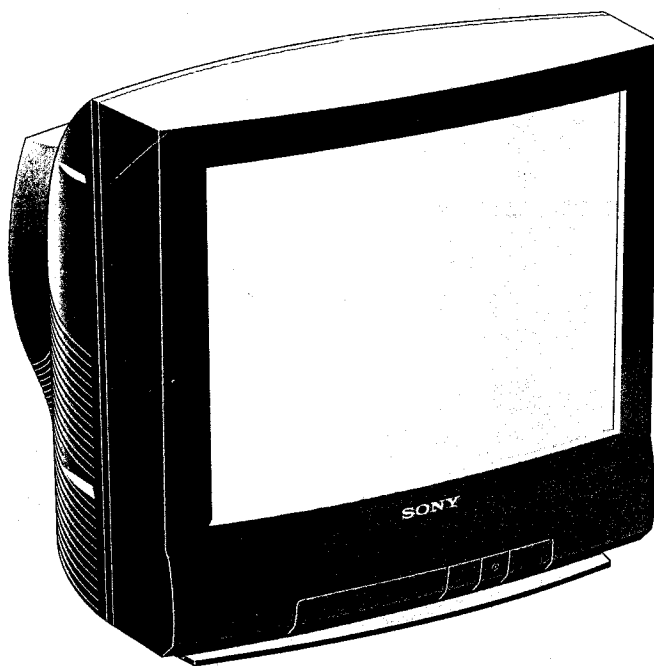


SERVICE MANUAL

BE-4A CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-21M1A	RM-836	Italian	SCC-J05E-A	KV-21M1K	RM-836	OIRT	SCC-J03J-A
KV-21T1A	RM-836	Italian	SCC-J05D-A	KV-21T1K	RM-836	OIRT	SCC-J03G-A
KV-21M1B	RM-836	French	SCC-J06G-A	KV-21M1L	RM-836	Irish	SCC-J02D-A
KV-21T1B	RM-836	French	SCC-J06F-A	KV-21T1L	RM-836	Irish	SCC-J02C-A
KV-21M1D	RM-836	AEP	SCC-J08F-A	KV-21T1R	RM-836	OIRT	SCC-J03H-A
KV-21T1D	RM-836	AEP	SCC-J08E-A	KV-21M1U	RM-836	UK	SCC-J01E-A
KV-21M1E	RM-836	Spanish	SCC-J04F-A	KV-21T1U	RM-836	UK	SCC-J01D-A
KV-21T1E	RM-836	Spanish	SCC-J04E-A				



TRINITRON® COLOR TV
SONY®

ITEM	MODEL	Television System	Channel Coverage	Colour System
Italian	B/G/H	VHF: E2-E12, S1-S20 UHF: E21-E69, S21-S41 HYPER: S1-S41		PAL
French	B/G/H, L	VHF: E2-E12, F2-F10, B-Q UHF: E21-E69, F21-F69 HYPER: S1-S41		PAL, SECAM
AEP	B/G/H	VHF: E2-E12 UHF: E21-E69 HYPER: S1-S41		PAL, SECAM
Spanish	B/G/H	VHF: E2-E12 UHF: E21-E69 HYPER: S1-S41		PAL
OIRT	B/G, D/K	B/G VHF: E2-E12 UHF: E21-E69 D/K VHF: R01-R12 UHF: R21-R69 Hyper : S1-S41		PAL, SECAM
Irish UK	I	UHF: U21-U69 VHF: A-J (Irish) UHF: U21-U69 (UK)		PAL

MODEL	21M1A 21T1A	21M1B 21T1B	21M1D 21T1D	21M1E 21T1E	21M1K 21T1K 21T1R	21M1L 21T1L	21M1U 21T1U
Power Consumption	39W	58Wh	58W	58W	58W	75W	75W

SPECIFICATIONS

Picture Tube Super Trinitron
Approx. 54.5 cm (21 inches)
(Approx. 51 cm picture measured diagonally)

Sound output 4W (RMS)
5W (music power)
Dimensions 513x475x475 mm approx.
Weight Approx. 21.5 kg
Supplied accessories RM-836 Remote Commander (1)
IEC designated batteries (2)
Other features TELETEXT (for KV-21T1 models)

Rear/Front Terminals

[REAR]

- ① 1 21-pin Euro connector (CENELEC standard)
- Inputs for audio / video signals
- Inputs for RGB

[FRONT]

- ② Video (phono jack)
- ③ Audio (phono jacks)
- ④ Headphone jack - minijack


[RM-836]

Remote control system Infrared control
Power requirements 3V dc (2 batteries) R6 (size AA)
Dimensions Approx. 210x45x24 mm (w/h/d)
Weight Approx. 90g
(Not including battery)

Design and specifications are subject to change without notice.

Item \ Model name	KV-21M1A KV-21T1A	KV-21M1B KV-21T1B	KV-21M1D KV-21T1D	KV-21M1E KV-21T1E	KV-21M1K KV-21T1K KV-21T1R	KV-21M1L KV-21T1L KV-21M1U KV-21T1U
PIP	OFF	OFF	OFF	OFF	OFF	OFF
MPIP	OFF	OFF	OFF	OFF	OFF	OFF
Scart 1	ON	ON	ON	ON	ON	ON
Scart 2	OFF	OFF	OFF	OFF	OFF	OFF
Front in (3)	ON	ON	ON	ON	ON	ON
Scart 4	OFF	OFF	OFF	OFF	OFF	OFF
Projector	OFF	OFF	OFF	OFF	OFF	OFF
AKB in 16:9 mode	OFF	OFF	OFF	OFF	OFF	OFF
Norm B/G/H	ON	ON	ON	ON	ON	OFF
Norm I	OFF	OFF	OFF	OFF	OFF	ON
Norm D/K	OFF	OFF	OFF	OFF	ON	OFF
Norm L	OFF	ON	OFF	OFF	OFF	OFF
Language Preset	Italian	French	German	Spanish	OIRT	English

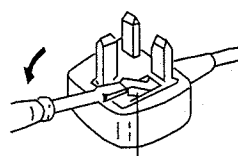
WARNING (KV-21M1L/21T1L/21M1U/21T1U only)

The flexible mains lead is supplied connected to a **B.S. 1363** fused plug having a fuse of **5 AMP** capacity. Should the fuse need to be replaced, use a **5 AMP FUSE** approved by **ASTA** to **BS 1362**, ie one that carries the  mark.

IF THE PLUG SUPPLIED WITH THIS APPLIANCE IS NOT SUITABLE FOR YOUR SOCKET OUTLETS IN YOUR HOME. IT SHOULD BE CUT OFF AND AN APPROPRIATE PLUG FITTED.

THE PLUG SEVERED FROM THE MAINS LEAD MUST BE DESTROYED AS A PLUG WITH BARED WIRES IS DANGEROUS IF ENGAGED IN A LIVE SOCKET OUTLET.

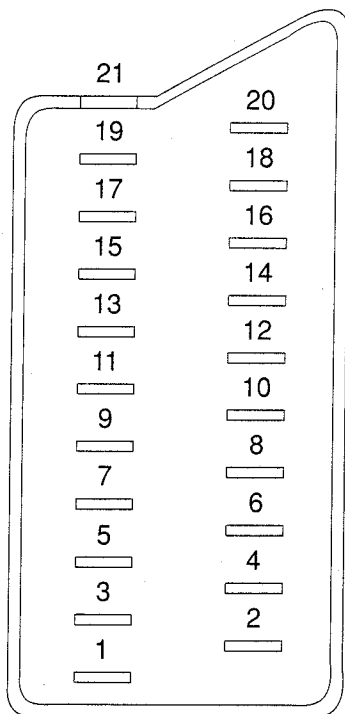
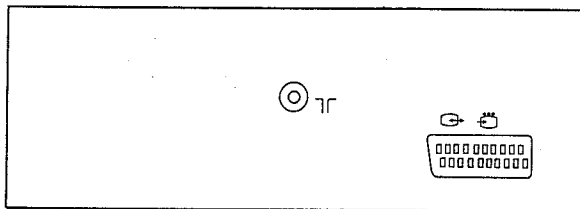
When an alternative type of plug is used it should be fitted with a **5 AMP FUSE**, otherwise the circuit should be protected by a **5 AMP FUSE** at the distribution board.



How to replace the fuse.

Open the fuse compartment with the screwdriver blade and replace the fuse.

21 pin connector (— 1)



Pin No.	1	2	4	Signal	Signal Level
1	○	○	○	Audio output B (Right)	Standard level : 0.5V rms Output impedance : Less than 1k ohms*
2	○	○	○	Audio input B (Right)	Standard level : 0.5V rms Output impedance : More than 10k ohms*
3	○	○	○	Audio output A (Left)	Standard level : 0.5V rms Output impedance : Less than 1k ohm*
4	○	○	○	Ground (Audio)	
5	○	○	○	Ground (Blue)	
6	○	○	○	Audio input A (Left)	Standard level : 0.5V rms Output impedance : Less than 10k ohm*
7	○	●	●	Blue input	0.7 ± 3dB, 75 ohms, positive
8	○	○	○	Function select (AV control)	High state (9.5 - 12V) : Part mode Low state (0 - 2V) : TV mode Input impedance : More than 10k ohms Input capacitance : Less than 2nF
9	○	○	○	Ground (Green)	
10	○	○	○	Open	
11	○	●	●	Green	
12	○	○	○	Open	
13	○	○	○	Ground (Red)	
14	○	○	○	Ground (Blanking)	
15	○	—	—	Red input	0.7 ± 3dB, 75 ohms, positive
	—	○	○	(S signal) chroma input	0.7 ± 3dB, 75 ohms, positive
16	○	●	●	Blanking input (Ys signal)	High state (1 - 3V) Low state (0 - 0.4V) Input impedance : 75 ohms
17	○	○	○	Ground (Video output)	
18	○	○	○	Ground (Video input)	
19	○	○	○	Video output	1V ± 3dB, 75ohms, positive sync : 0.3V (-3 + 10dB)
20	○	—	—	Video input	1V ± 3dB, 75ohms, positive sync : 0.3V (-3 + 10dB)
	—	○	○	Video input Y (S signal)	1V ± 3dB, 75ohms, positive sync : 0.3V (-3 + 10dB)
21	○	○	○	Common ground (plug, shield)	

○ Connected ● Not Connected (Open) * at 20Hz - 20kHz

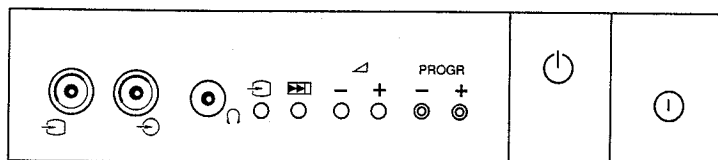


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CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND, IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.


ATTENTION

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION !!

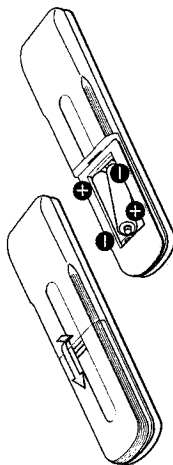
AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MARQUE  SUR LES VUES EXPLOSÉES ET LES LISTES DE PIÈCES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÈCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

Step 1

Inserting the Batteries into the Remote Commander



Step 2

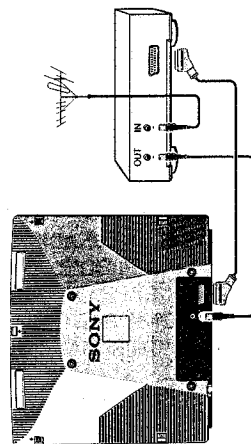
Connecting the Aerial

If you connect a VCR, skip to step 3.

Connect an external aerial to the socket **II** **V**.

Step 3

Connecting a VCR



- It is recommended to tune in the VCR signal to programme number "0". For details, see "Presetting Channels Manually" on page 12.

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

Step 4

Presetting Channels Automatically

TV searches for all available channels. If manual tuning is preferred see Menu option - Presetting Channels Manually.

1

Plug into mains.
Press power switch **⓪** **X** on TV set.

2

Press and hold **▶▶** **1** on TV set for 2 seconds.
Auto tuning starts and screen shows.

PROGR 01
BG DK
U ■■■■■■■■■■---

Note • When Auto tuning stops the programme on position 1 is seen.

TV Operation

This section explains functions used whilst watching TV. Most operations are carried out using the Remote Commander.

To	Press
Switch on	on TV
Switch off temporarily	on TV is now in standby mode, indicator on TV lights.
Switch on again	PROG + / - or any number button
Switch off completely	on TV To save energy we recommend switching off completely when TV is not in use.
Select programmes	PROGR + / - or number buttons For double digit numbers press - / - then the number e.g. For 23, press - / - then 2 and 3.
Display the programme number	Press again to make programme number disappear.
Adjust the volume	+ / -
Mute the sound	Press again to restore sound.
View video input	Press again to return to TV programme.
View programmes in 16:9 mode	Press again to return to 4:3 mode.

Note • is to be used to optimise the viewing of 16:9 signals, which will be available in the future.

Viewing Teletext

Teletext is an information service broadcast by TV stations.

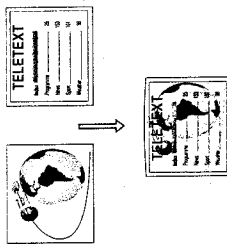
- 1 Select the channel which carries the teletext service you wish to receive.
- 2 Press to switch on teletext.
- 3 Input three digits for the page number using the programme number buttons or PROG + / - .
- 4 Press to switch off teletext.

Note • Teletext errors may occur if the broadcasting signals are weak.

Using Other Teletext Functions

Superimposing teletext on the TV

Press once in teletext mode or twice in TV mode to superimpose teletext on the TV screen.
Press again to cancel superimposing.



Freezing a teletext subpage

Press (HOLD) to freeze the subpage. Freezing the page prevents the information that is displayed from being updated.
Press to cancel HOLD and allow update to continue.

Revealing concealed information (eg: answers to a quiz)

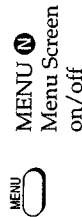
Press to reveal information.
Press again to conceal the information.

Using colour buttons to access pages

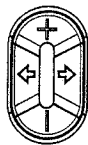
When the colour coded menu appears at the bottom of a page, press the colour button (red, green, blue or yellow) to access the corresponding page.

Note • A programme status message in a blue box may appear when you change programmes (depends on broadcasters).

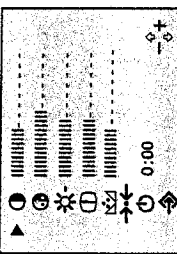
Use buttons on Remote Commander to control Menu screen.



Green **G**
scroll up



Red **R**
decrease



Yellow **Y**
increase/confirm(OK)

Blue **B**
scroll down

Adjusting the Picture

1 Press MENU **M**.

2 Press green **G** or blue **B** button to select the item you wish to change.

Symbol	Item	Effect	+
P	Picture	Less	More
C	Colour	Less	More
B	Brightness	Darker	Brighter
S	Sharpness	Softer	Sharper
H	Hue	Reddish	Greenish

Note • Hue is available only when NTSC signal is input.

3 Press red **R** or yellow **Y** button to change levels.

4 Press MENU **M** to return to normal TV screen.

Note • To reset to factory preset picture levels, press green **G** or blue **B** button to select **➔➔** and press yellow (OK) **Y** button.

Using the Sleep Timer

The TV may be set to switch to the standby mode automatically after a length of time chosen by you. You may set the time in 30 minutes steps up to 4 hours.

1 Press MENU **M**.

2 Press green **G** or blue **B** button to select **⏰**.



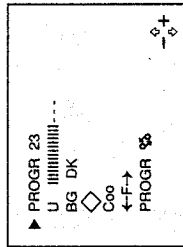
3 Press red **R** or yellow **Y** button to set time delay.
0.00 (OFF) 0.30 1.00 1.30 4.00

4 Press MENU **M** to return to normal TV screen.
When watching TV, press **⏻** to display time remaining.

Presetting Channels Manually

Up to 60 programme positions are available for presetting channels.

- 1 Press MENU **N**.
- 2 Press green **G** or blue **B** button to select \Rightarrow and press yellow **OK** **O** button.
- 3 Select programme number using PROG \pm **V** or the number buttons **0**.
- 4 Press green **G** or blue **B** button to select TV system (BG or DK) if necessary and press red **R** or yellow **O** button to change TV system.



- 5 Press green **G** or blue **B** button to select tuning bar (|||||...) and press red **R** or yellow **O** button to start channel search. When a channel is found the tuning bar stops moving and you see the picture.

- 6 If you want to store, press green **G** or blue **B** button to select \diamond and press yellow **OK** **O** button. If you do not want to store, press red **R** or yellow **O** button to continue search.

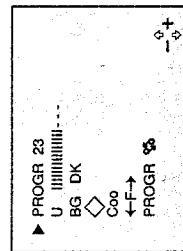
- 7 Repeat steps 3 to 6 for all other channels.

- 8 Press MENU **N** to return to normal TV screen.

Skipping Programme Positions

You can skip unused programme positions when selecting channels with the PROG \pm **V** buttons. You can still select them, however, using the number buttons **0**.

- 1 Press MENU **N**.
- 2 Press green **G** or blue **B** button to select \Rightarrow and press yellow **OK** **O** button.
- 3 Select programme number you want to skip using PROG \pm **V** button or number buttons **0**.
- 4 Press green **G** or blue **B** button to select Coo and press yellow **OK** **O** button.
- 5 Press green **G** or blue **B** button to select \diamond and press yellow **OK** **O** button to store.
- 6 Repeat steps 3 to 5 for other unused programme positions.
- 7 Press MENU **N** to return to normal TV screen.

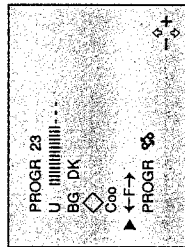


Note • To restore a skipped programme number, refer to 'Presetting Channels Manually'.

Fine-Tuning Channels

You can fine tune a stored channel if necessary.

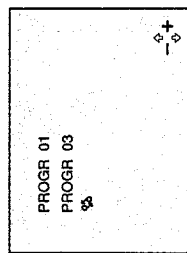
- 1 Select the channel you wish to fine tune.
- 2 Press MENU **N**.
- 3 Press green **G** or blue **I** button to select \rightarrow and press yellow (OK) **O** button.
- 4 Press green **G** or blue **I** button to select \leftrightarrow F \rightarrow and use red **H** or yellow **O** button to adjust tuning.
- 5 Press green **G** or blue **I** button to select \diamond and press yellow (OK) **O** button to store.
- 6 Press MENU **N** to return to normal TV screen.



Exchanging Programme Positions

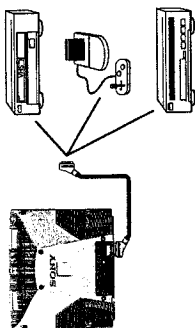
After tuning you may wish to rearrange the programme positions.

- 1 Press MENU **N**.
- 2 Press green **G** or blue **I** button to select \rightarrow and press yellow (OK) **O** button.
- 3 Press green **G** or blue **I** button to select **PROGR 01** and press yellow (OK) **O** button.
- 4 Press red **H** or yellow **O** button to select the first programme position.
- 5 Press the blue **I** button.
- 6 Press the red **H** or yellow **O** button to select the second programme position.
- 7 Press blue **I** button to select \leftrightarrow and press yellow (OK) **O** button to exchange.
- 8 Repeat steps 4 to 7 for other programme positions.
- 9 Press MENU **N** to return to normal TV screen.



Using the Connectors

Your TV has one 21-pin connector **Z** on the rear of the set and two connectors (phono jacks: **⊖** video, **⊕** audio) **Q** on the front of the set. You can connect optional audio or video equipment to these connectors, such as a VCR, video games or a video disc player.



1 Press **⊖****05** to view the video input signal.

2 Press **⊖****05** or **0** to return to normal TV screen.

Note • To avoid picture distortion, do not connect equipment to the 21-pin connector and the front connectors at the same time.

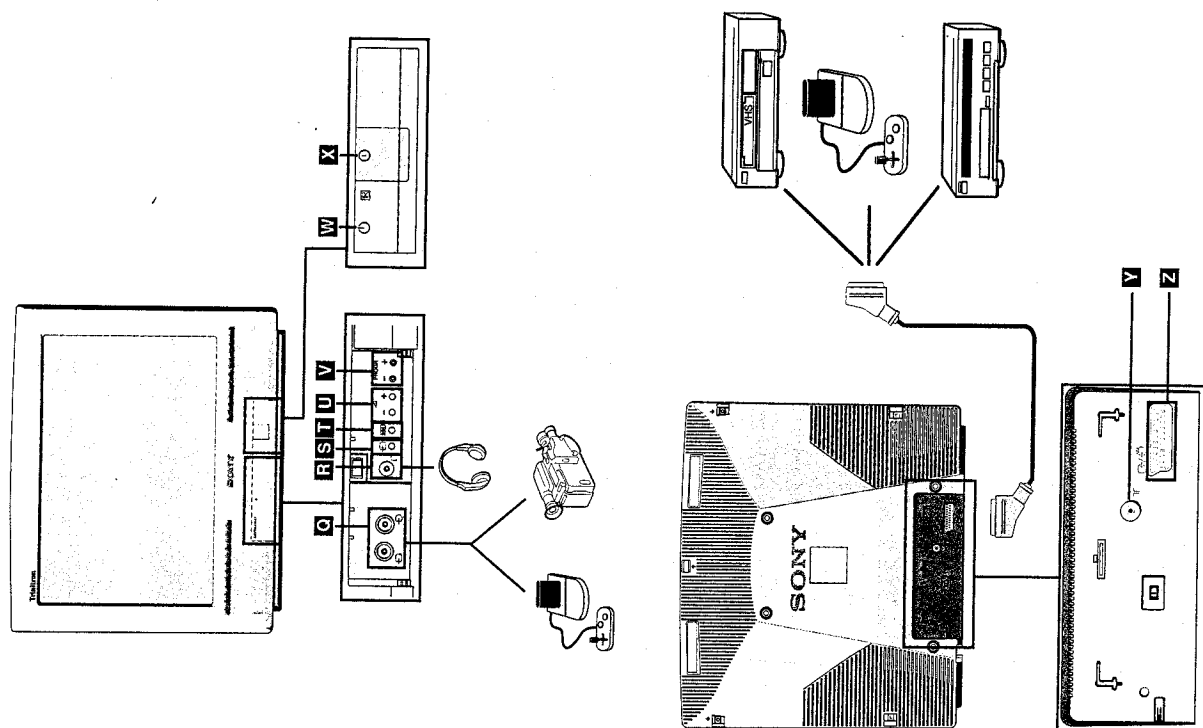
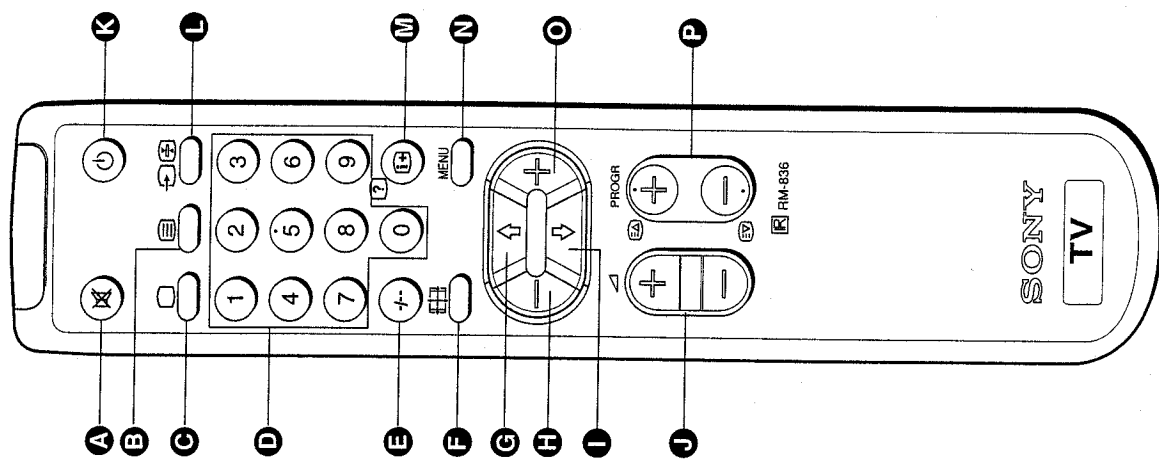
Connecting Headphones

Plug in the headphones to the **⊖** **⊕** socket on the front of the TV set to mute the sound from the speaker.

Troubleshooting

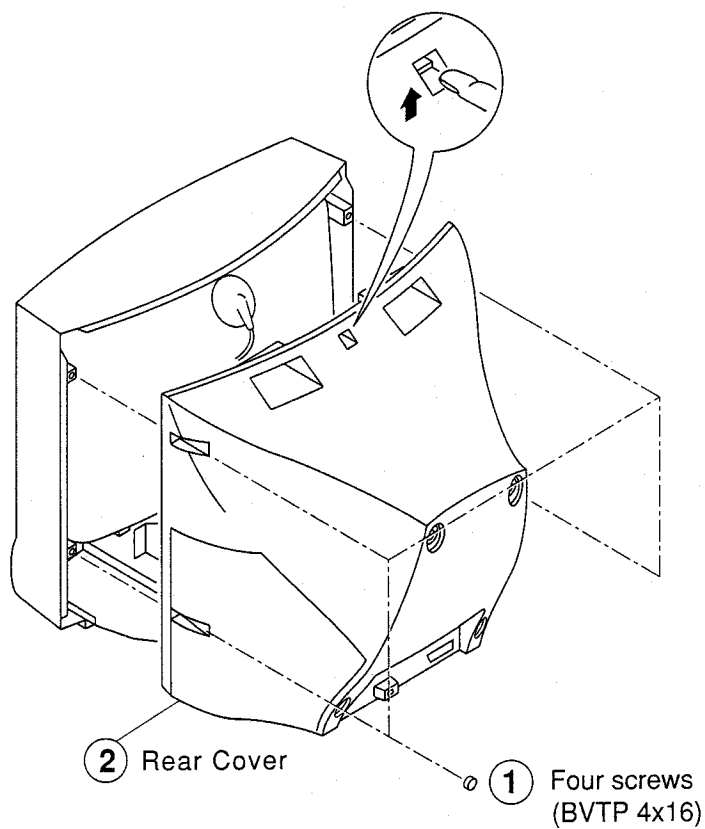
Here are some simple solutions to the problems which affect the picture and sound.

Problem	Solution
No picture, screen is dark, no sound	<ul style="list-style-type: none"> • Plug the TV in. • Press ⊖X on the TV. • Press 0 or the programme number ⊖ on the remote commander if ⊖ indicator W is on. • Check the aerial connection. • Check that the video source is on. • Turn the TV off for 3 or 4 seconds and then turn it on again using ⊖X.
Poor or no picture (screen is dark, sound is good)	<ul style="list-style-type: none"> • Press MENU N and adjust brightness picture and colour levels.
Good picture, no sound	<ul style="list-style-type: none"> • Adjust the volume ⏮ + - ⏭. • Disconnect any headphones. • Press ⊖A if ⊖ is displayed on the screen. • Press MENU N and select appropriate TV system.
No colour on colour programmes	<ul style="list-style-type: none"> • Press MENU N and adjust colour balance. • Press MENU N and reset to factory settings.
Distorted picture when you change programmes or select teletext	<ul style="list-style-type: none"> • Turn off the equipment connected to the 21-pin connector Z when this equipment is not in use.
Remote commander does not function	<ul style="list-style-type: none"> • Replace the batteries.
• If you continue to have these problems, have your TV serviced by qualified personnel. • NEVER open the casing yourself.	

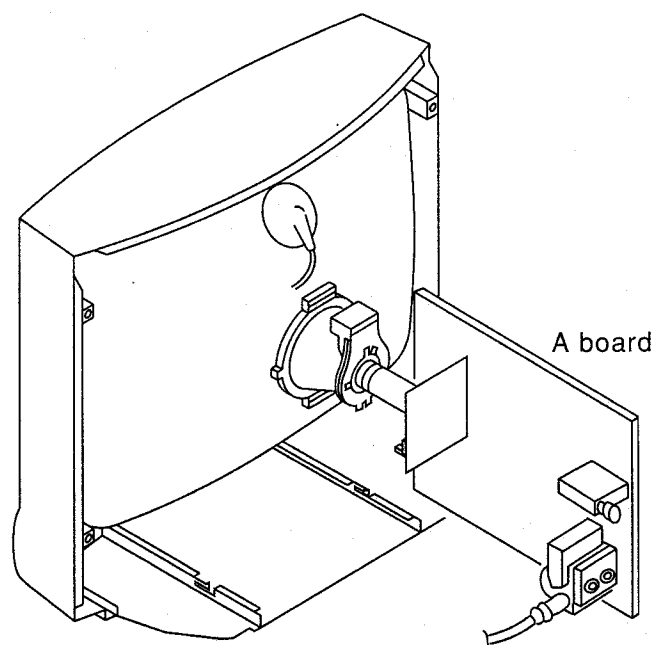


SECTION 2 DISASSEMBLY

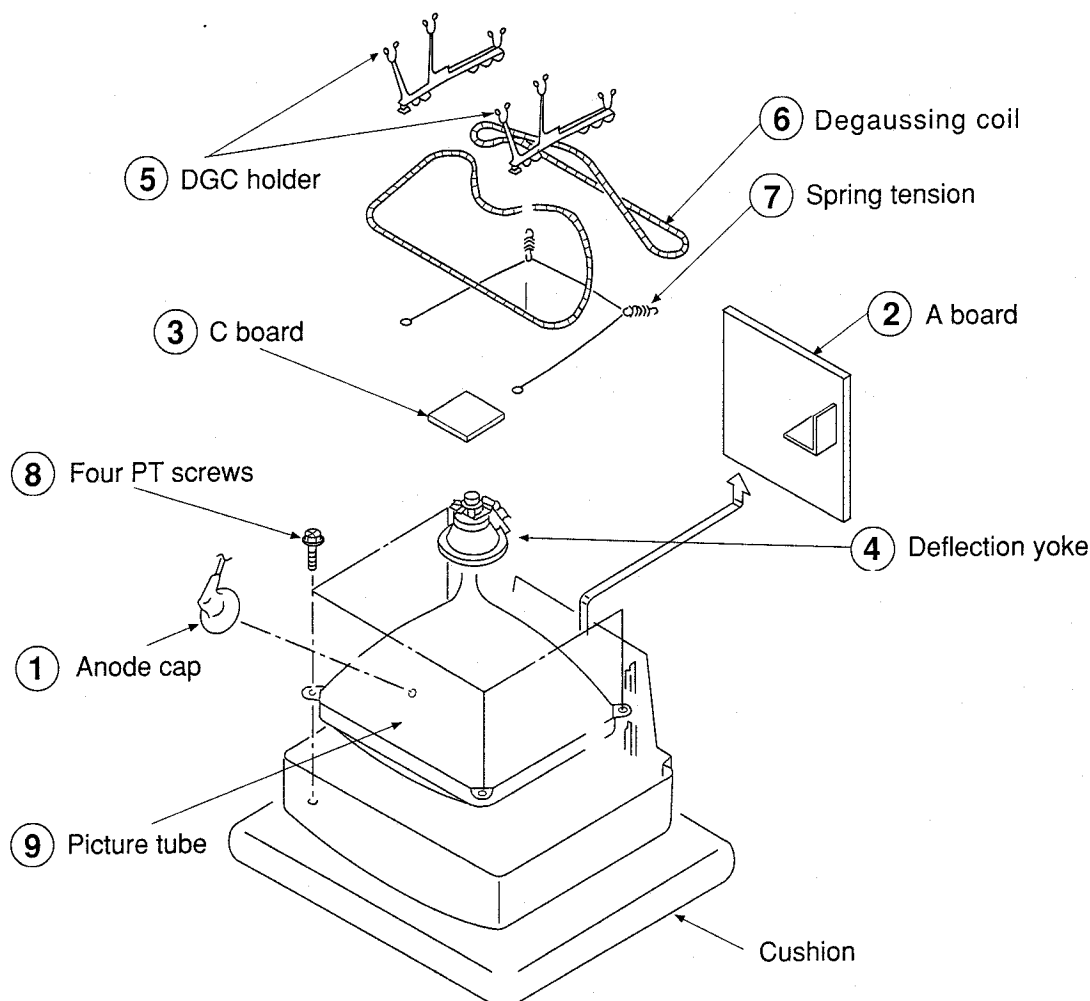
2-1. REAR COVER REMOVAL



2-2. SERVICE POSITION



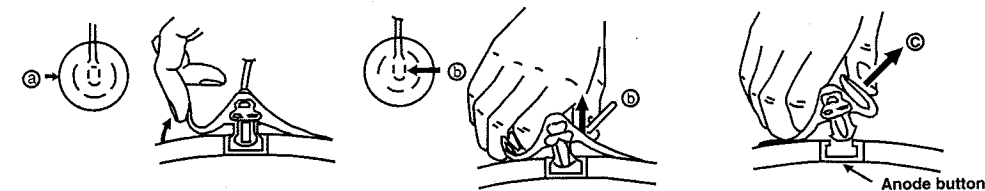
2-3. PICTURE TUBE REMOVAL



• REMOVAL OF ANODE-CAP

Note: Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

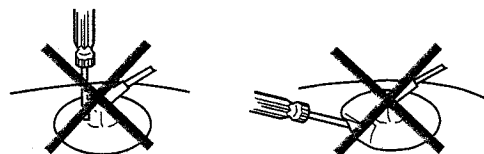
* REMOVING PROCEDURES.



- ① Turn up one side of the rubber cap in the direction indicated by the arrow **a**
- ② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow **b**
- ③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow **c**

• HOW TO HANDLE AN ANODE-CAP

- ① Don't damage the surface of anode-cap with sharp shaped material !
- ② Don't press the rubber hardly not to hurt inside of anode-caps !
A metal fitting called as shutter-hook terminal is built into the rubber.
- ③ Don't turn the foot of rubber over hardly !
The shutter-hook terminal will stick out or damage the rubber.



SECTION 3 SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with the rated power supply voltage, unless otherwise noted.

The Contrast and Brightness controls should be set as follows unless otherwise noted:

- CONTRAST control 80%
(or Normal by commander)
- ⚙ BRIGHTNESS control 50%

Perform the adjustments in the following order:

1. Beam Landing
2. Convergence
3. Screen (G2), Drive, White Balance, Sub Colour and Sub Brightness.
4. Focus

Note: Test Equipment Required.

1. Colour bar/Pattern Generator
2. Degausser
3. DC Power Supply
4. Digital multimeter
5. Oscilloscope

Preparation:

- In order to reduce the influence of external magnetic forces on the picture tube, face the TV set in an easterly or westerly direction.
- Turn the power switch for the unit ON and erase the magnetic force using a degausser.

3-1. BEAM LANDING

Demagnetize with a degausser.

1. Input an all white raster signal from the pattern generator.
CONTRAST } normal
BRIGHTNESS }
2. Switch the raster signal of the pattern generator to Red.
3. Move the deflection yoke backward, and adjust with the purity control so that Red is at the centre and the Blue and Green are evenly spaced at the sides. see (Fig. 3-1 - 3-3)
4. Move the deflection yoke forward, and adjust so that the entire screen becomes Red. (Fig. 3-1)
5. Switch the raster signal to Blue and then Green to confirm the condition.
6. When the position of the deflection yoke has been determined, tighten it with the deflection yoke mounting screw.
7. When the landing at the corners is not correct, adjust by using disk magnets. (Fig. 3-4)

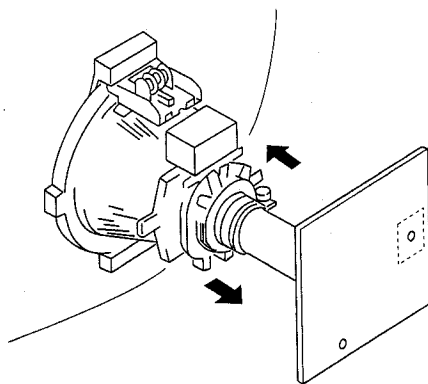


Fig. 3-1

Fig. 3-2

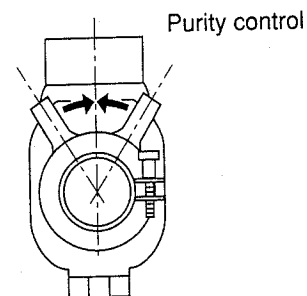


Fig. 3-3

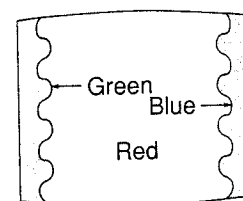
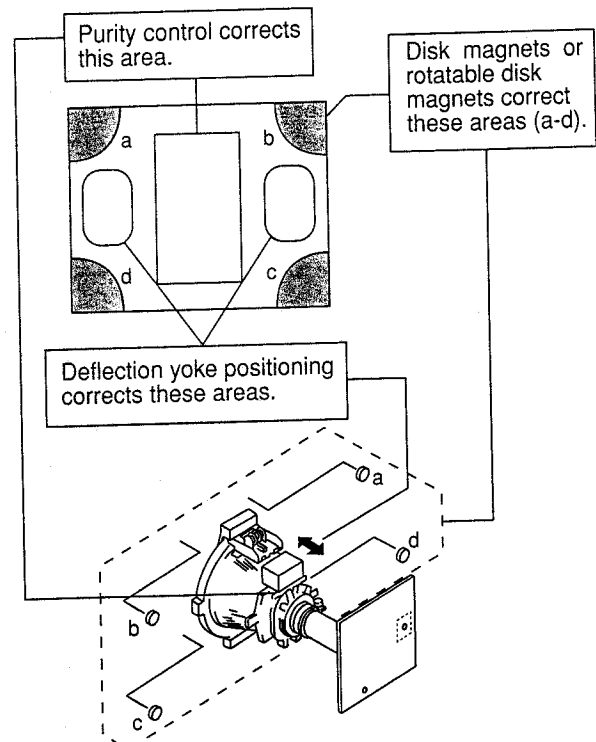


Fig. 3-4

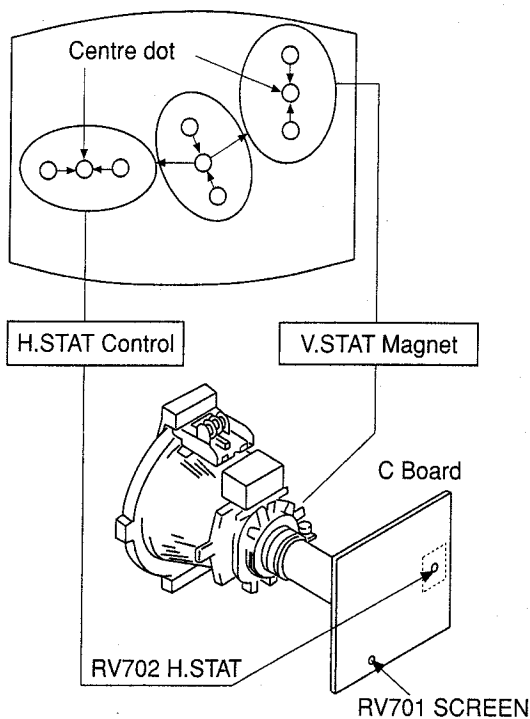


3-2. CONVERGENCE

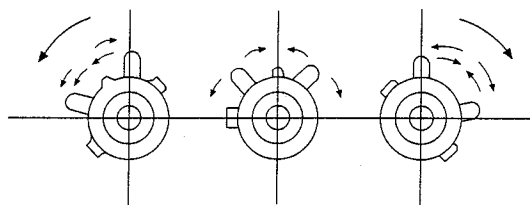
Preparation:

- Before starting, perform FOCUS, H.SIZE, and V.SIZE adjustments.
- Set the BRIGHTNESS control to minimum.
- Input a dot pattern from the pattern generator.

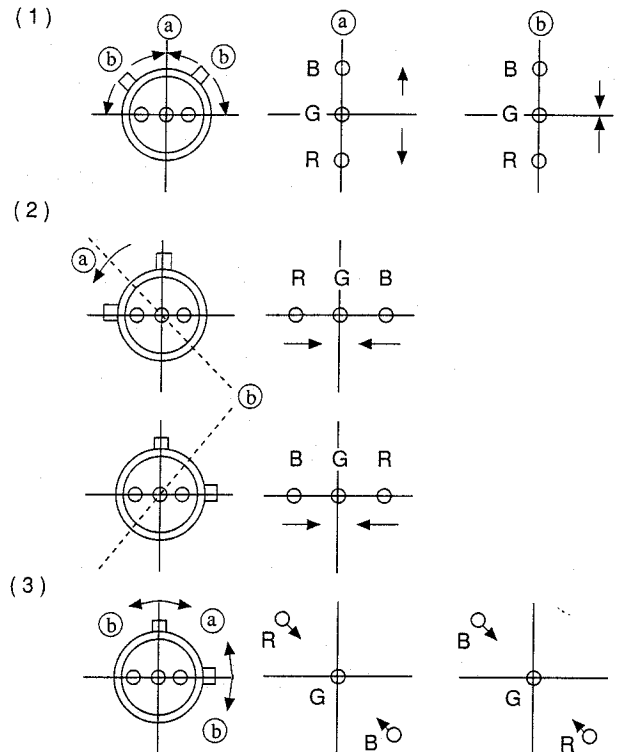
(1) Horizontal and Vertical Static Convergence



1. Adjust the H.STAT control to converge the Red, Green and Blue dots at the centre of the screen. (Horizontal movement)
 2. Adjust the V.STAT magnet to converge the Red, Green and Blue dots at the centre of the screen. (Vertical movement)
- If the horizontal dots cannot coincide with variable range of the H.STAT convergence, adjust together with the V.STAT convergence while tracking.
(Adjust the convergence by tilting the V.STAT convergence or by opening or closing the V.STAT convergence.)



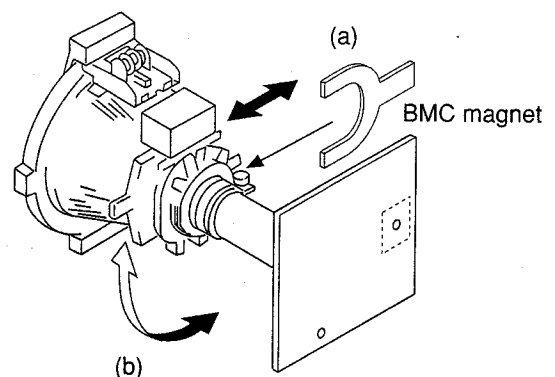
3. When the V.STAT magnet is moved in the direction of the (a) and (b) arrows, the Red, Green and Blue dots move as shown below.



If the Red and Blue dots do not converge with the Green dots, perform the following steps.

1. Move the BMC magnet (a) to correct for insufficient H.static convergence.
2. Rotate the BMC magnet (b) to correct for insufficient V.static convergence.

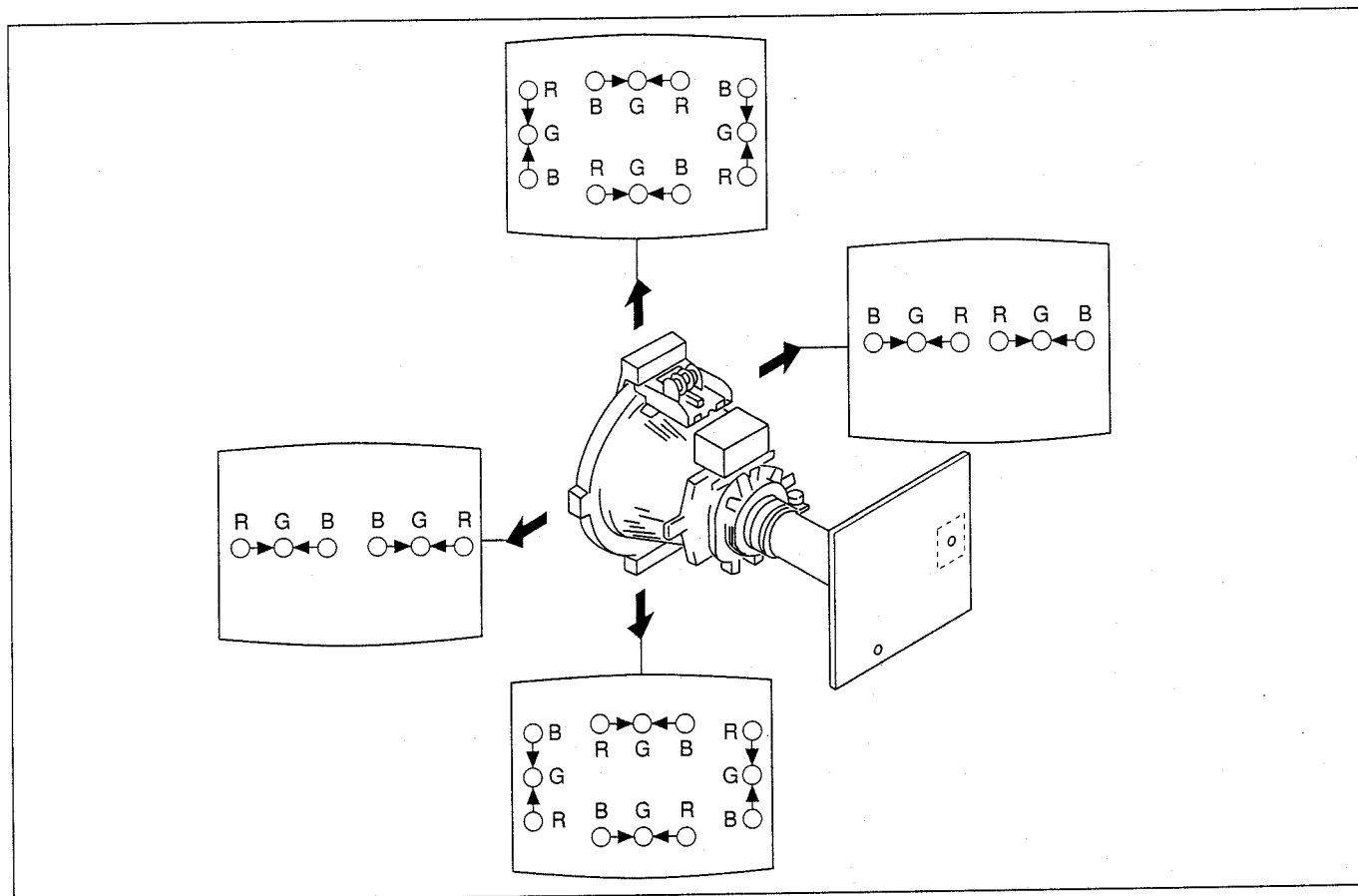
In either case, repeat the Beam Landing Adjustment.



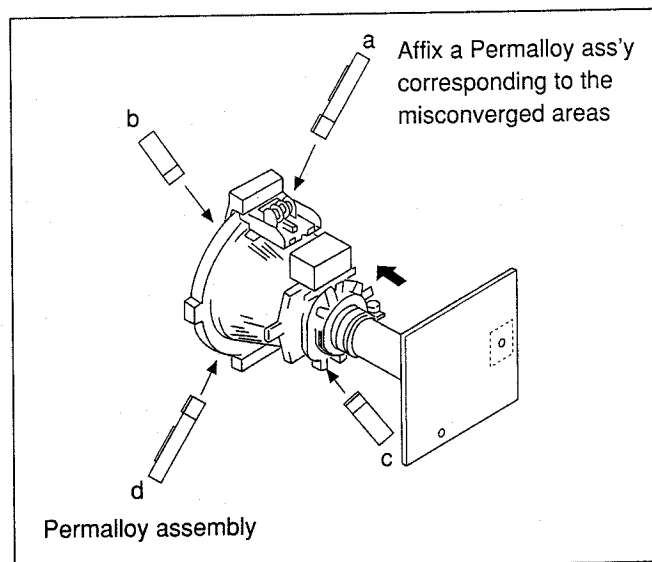
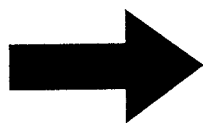
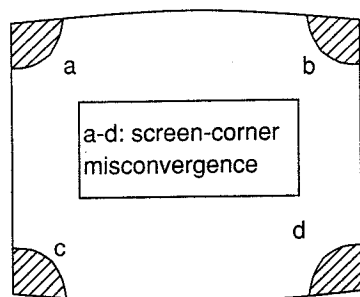
(2) Dynamic Convergence Adjustment

Preparation:

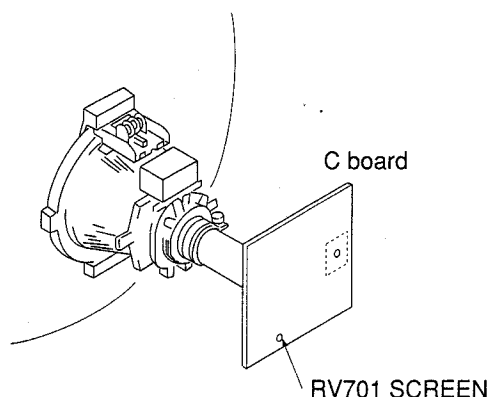
- Before starting, perform the Horizontal and Vertical static convergence adjustment.
1. Slightly loosen the deflection yoke screw.
 2. Remove the deflection yoke spacers.
 3. Move the deflection yoke for best convergence as shown below.
 4. Tighten the deflection yoke screw.
 5. Install the deflection yoke spacers.



(3) Screen-corner Convergence.



3-3. SCREEN (G2), DRIVE, WHITE BALANCE, SUB COLOUR and SUB BRIGHTNESS.

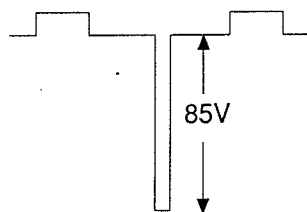


Screen (G2) setting

1. Input a 0 IRE (Black Level) signal from the pattern generator.
2. Enter into the Service Mode "Test""Test" and 38.
3. Adjust RV701 until the Down arrow is displayed.
4. Adjust RV701 until the Down arrow just disappears.
5. Press the TV Button on the Remote Commander to store the data.

Drive Level

1. Input a Video signal containing a small area of 100% white on a black background.
2. Connect an oscilloscope to Pin (10) of J701 (R OUT) on the C Board.
3. Set the Picture to maximum using "Test""Test" and 01.
4. Enter into the Service mode (Adjust Menu).
5. Using the Blue and Green buttons select "RED HWB".
6. Using the Red and Yellow buttons on the Remote Commander adjust until the oscilloscope waveform has an amplitude of 85V.

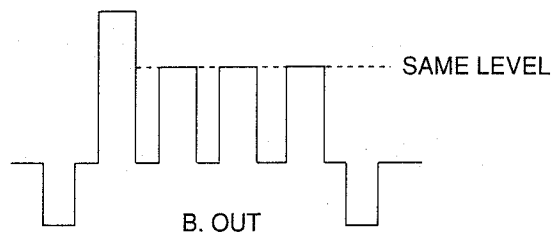


White Balance Adjustment

1. Input an all white pattern from the pattern generator.
2. Adjust the Colour and Brightness controls to the standard level.
3. Enter into the Service Mode.
4. Adjust the Green HWB and Blue HWB so that the White Balance becomes optimum.

Sub Colour Adjustment

1. Input a PAL colour bar pattern from the pattern generator.
2. Connect an oscilloscope to Pin (8) of J701 (B OUT) on the C Board.
3. Enter into the Service Mode "Test""Test" and 22.
4. Using the Red and Yellow buttons on the Remote Commander adjust until the oscilloscope waveform becomes as follows :



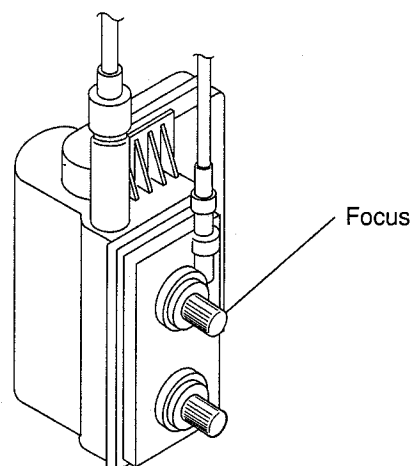
Note : If the TV is able to receive PAL and SECAM transmissions, repeat the above procedure using a Secam colour bar signal.

Sub Brightness Adjustment

1. Input a Philips pattern from the pattern generator.
2. Enter into the Service Mode "Test""Test" and 23.
3. Using the Red and Yellow buttons on the Remote Commander adjust until the 0 IRE of the grey scale and the cut off are only slightly visible on the screen.

3-4. FOCUS

1. Receive a television broadcast signal.
2. Normalize the picture setting.
3. Adjust the focus control on the flyback transformer for the best focus at the centre of the screen.
Bring only the centre area of the screen into focus, the magenta-ring appears on the screen. In this case, adjust the focus to optimize the screen uniformly.



SECTION 4

CIRCUIT ADJUSTMENTS

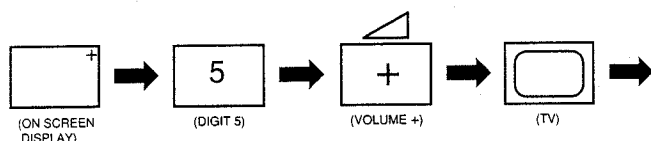
4-1. ELECTRICAL ADJUSTMENTS

Service adjustment to this model can be performed with the supplied Remote Control Commander RM-836.

Range of adjustments available from the on screen menu system.

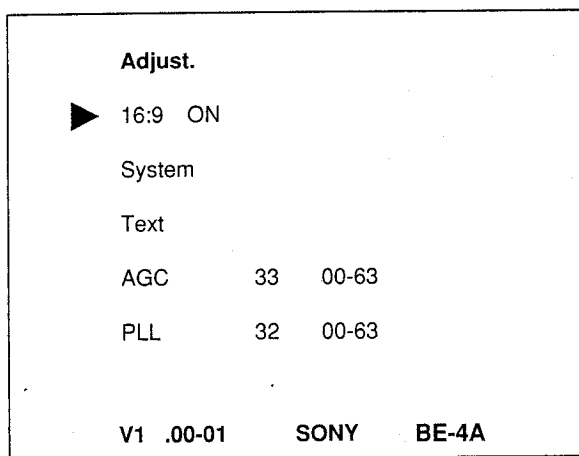
HOW TO ENTER INTO SERVICE MODE

1. Turn on the main power of the set and enter into stand-by mode.
2. Press the following sequence of buttons on the Remote Control Commander.



"TT--" will appear in the top right corner of the screen. Other status information will also be displayed.

3. Press the MENU button on the Remote Commander to obtain the menu on the screen.



Software version

Adjustment	Set	Range
16:9 Off	Select	ON/OFF
System	Select	BG-L, BG-DK UK, Eire, BG
Text	Select	EAST/WEST
AGC	Adj.	00 - 63
PLL	Adj.	00 - 63
B&W Delay	Adj.	00 - 63
Ver Size	Adj.	00 - 63
Ver, Breath	00	00 - 63
Par, Ampl	00	00 - 63
Par, Tilt	32	00 - 63
V, Linear	Adj.	00 - 63
Corn, corr	00	00 - 63
V, Cen or EW	Adj.	00 - 63
V, Position	42	00 - 63
H, Centre	Adj.	00 - 63
Blue HWB	Adj.	00 - 63
Green HWB	Adj.	00 - 63
Red HWB	Adj.	00 - 63

4. Press the Blue (Next) or Green (previous) buttons to select the adjustment item from the table.
5. Press the Yellow (+) or Red (-) buttons to change the data as required.
6. Turn off the power to quit the service mode when adjustments are completed.

4-2. TEST MODE 2:

TT -- Mode is available by pressing the Test button twice, O.S.D 'TT --' appears. The functions described below are available by pressing two digits. To release the 'TT --' mode, press 0 twice, press 'TEST', press 'TV' or switch the TV into Stand-by mode.

00	Switch 'TT--' Mode off.
01	Set picture level to maximum.
02	Set picture level to minimum.
03	Set volume to 35%.
04	Set volume to 50%.
05	Set volume to 65%.
06	Set volume to 80%.
07	Ageing condition (picture max., brightness max.).
08	Shipping condition (Analog values are RESET to factory setting, Prog 1 is selected, TT--mode switched off, Vol = 35%).
09	Dummy.
10	No function.
11	Dummy
12	Text Picture Level Offset (Enable/Disable)
13	Select Odd / Even field for Non-interlaced teletext.
14	Select Interlaced / Non-interlaced teletext display.
15	Read factory setting from ROM to NVM - Reads Volume, Brightness, Picture, Hue, Sharpness and Colour values from ROM to the actual used values (Last Power Memory).
16	No function
17	Enable / Disable Sharpness Operation.
18	Enable / Disable Teletext Operation.
19	Enable / Disable NTSC Operation.
20	No function.
21	Sub Picture.
22	Sub Colour (Pal / Secam Different Stores)
23	Sub Brightness.
24	Destination System BG/L.

25	Destination Systems BG/L.
26	Destination Systems I.
27	Destination System I/I'.
28	Destination BG only.
29	Dummy.
30	No function.
31-32	Dummy.
33	Auto AGC Adjust.
34	Auto PLL Adjust.
35-37	Dummy.
38	Enter G2 adjustment mode.
39	Dummy.
40	No function.
41	Re-initialise NVM.
42	Dummy.
43	Re-initialise Geometry settings.
44-47	Dummy
48	Set NVM testbyte to 44h in.NVM.
49	Erase NVM testbyte
50	No function.

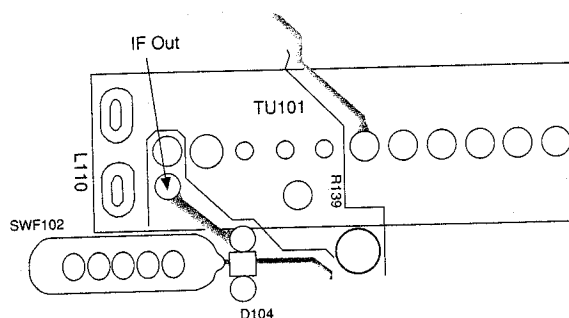
Note : For Test Modes 41 - 50, it is necessary to ensure that the TV is set to Prog 59.

IF ADJUSTMENT (AUTOMATIC)

1. Input a 38.9 MHz 100dBμ CW signal at the IF Out injection point.
2. Enter into service mode and press 34.
3. Connect a digital voltmeter to IC101 pin (23).
4. Check AFT 2.5V \pm 0.3V dc.
5. Press '00' on the Remote Commander.

SYSTEM L ADJUSTMENT (French Models)

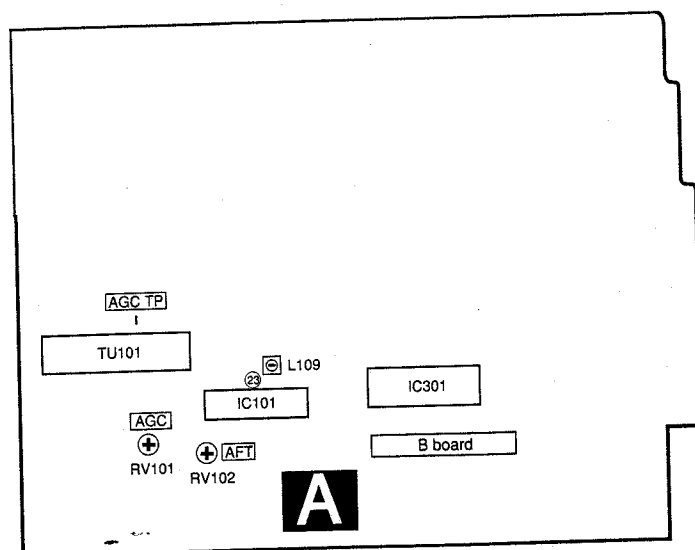
1. Input a 33.9MHz 100dBμ CW signal at the IF Out injection point.
2. From the On Screen Menu set System to L band 1.
3. Connect a digital voltmeter to IC101 pin (23).
4. Adjust RV102 AFT for 2.5V \pm 0.3V dc.



- A Board Print Side -

AGC ADJUSTMENT

1. Receive an off-air signal.
2. Enter into the Service adjust menu and select AGC.
3. Adjust the data using the Red and Yellow buttons on the Remote Commander so that there is no snow or cross - modulation visible on the screen.
4. Change the receiving off-air channel, and confirm the above status.



- A Board Component Side -

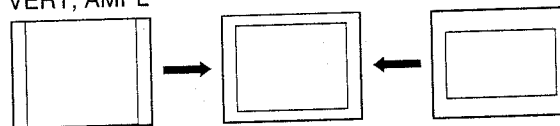
DEFLECTION SYSTEM ADJUSTMENT

1. Enter into the service mode.
2. Using the Blue or Green buttons select the Adjust item.
3. Press the Yellow button to enter the adjustment submenu.
4. Select and adjust each item in order to obtain the optimum image.

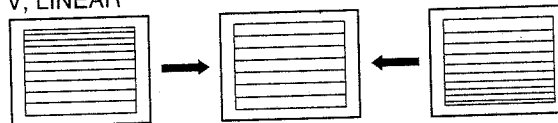
See Note on page 22

Adjustment	Set	Range
VERT, AMPL	Adj.	00 - 63
VER, BREATH	00	00 - 63
PAR, AMPL	00	00 - 63
PAR, TILT	32	00 - 63
V, LINEAR	Adj.	00 - 63
CORN, CORR	Adj.	00 - 63
V, CENTRE	Adj.	00 - 63
V, POSITION	42	00 - 63
H, CENTRE	Adj.	00 - 63

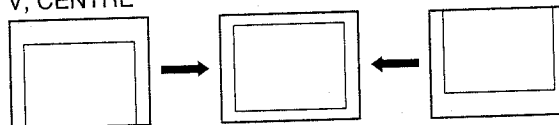
VERT, AMPL



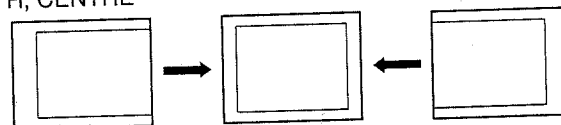
V, LINEAR



V, CENTRE



H, CENTRE



Fit the link as required to obtain the correct horizontal picture size.

4-3. BE-4A SELF DIAGNOSTIC SOFTWARE

The identification of errors within the BE-4A chassis is triggered in 1 of 2 ways :- 1: Bus busy or 2: Device failure to respond to I²C. In the event of one of these situations arising the software will first try to release the Bus if busy (Failure to do so will report with a continuous flashing LED) and then communicate with each relevant device in turn to establish if a device is faulty. If a device is found to be faulty the relevant device number will be displayed through the LED by a Series of flashes which must be counted (See Table 1), Non fatal errors are reported with this method.

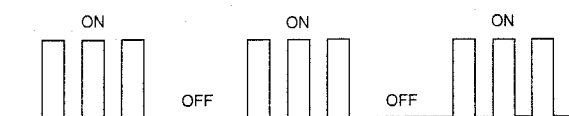
If a fatal error is found, the set will simply stay in whichever state it was when the error occurred, but if a non fatal error occurs the set will try to continue to operate.

Table 1

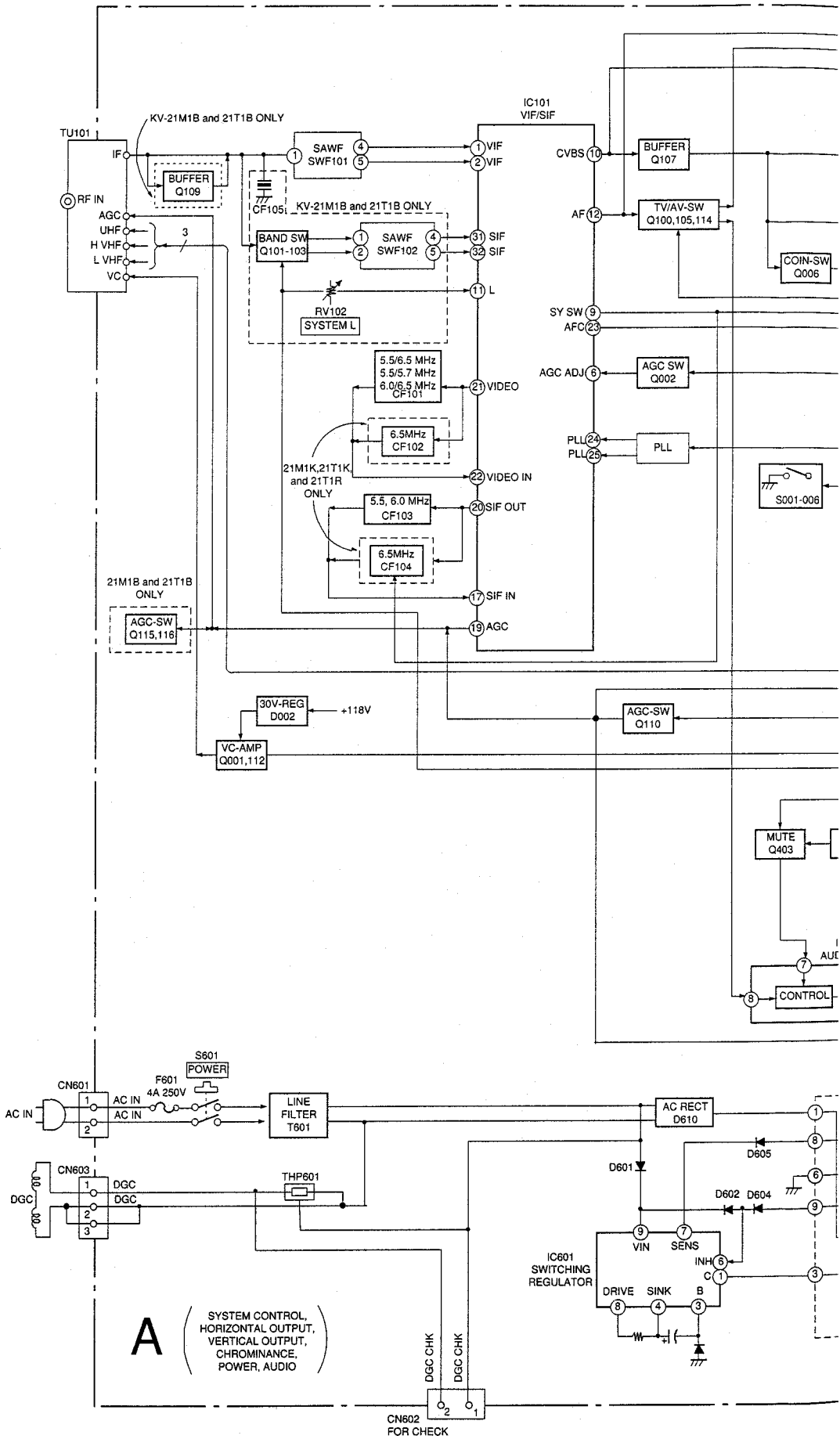
No of Flashes	Meaning
2	IC301 not acknowledging I ² C transmission, NVM OK.
3	IC301 FAULT (Not OK) - flags
4	IC301 - No H Flyback
5	IC301 - Stack Overflow.
6	Overvoltage / Overcurrent Protection (Pin 52) high.
7	IC002 not acknowledging I ² C transmission, IC301 OK.
8	IC002 and IC301 - No I ² C acknowledgment.
9	General I ² C Error (SDA or SCL being held low) (IC301, IC001, IC002, CN001)

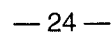
Flash Timing Example : e.g. error number 3

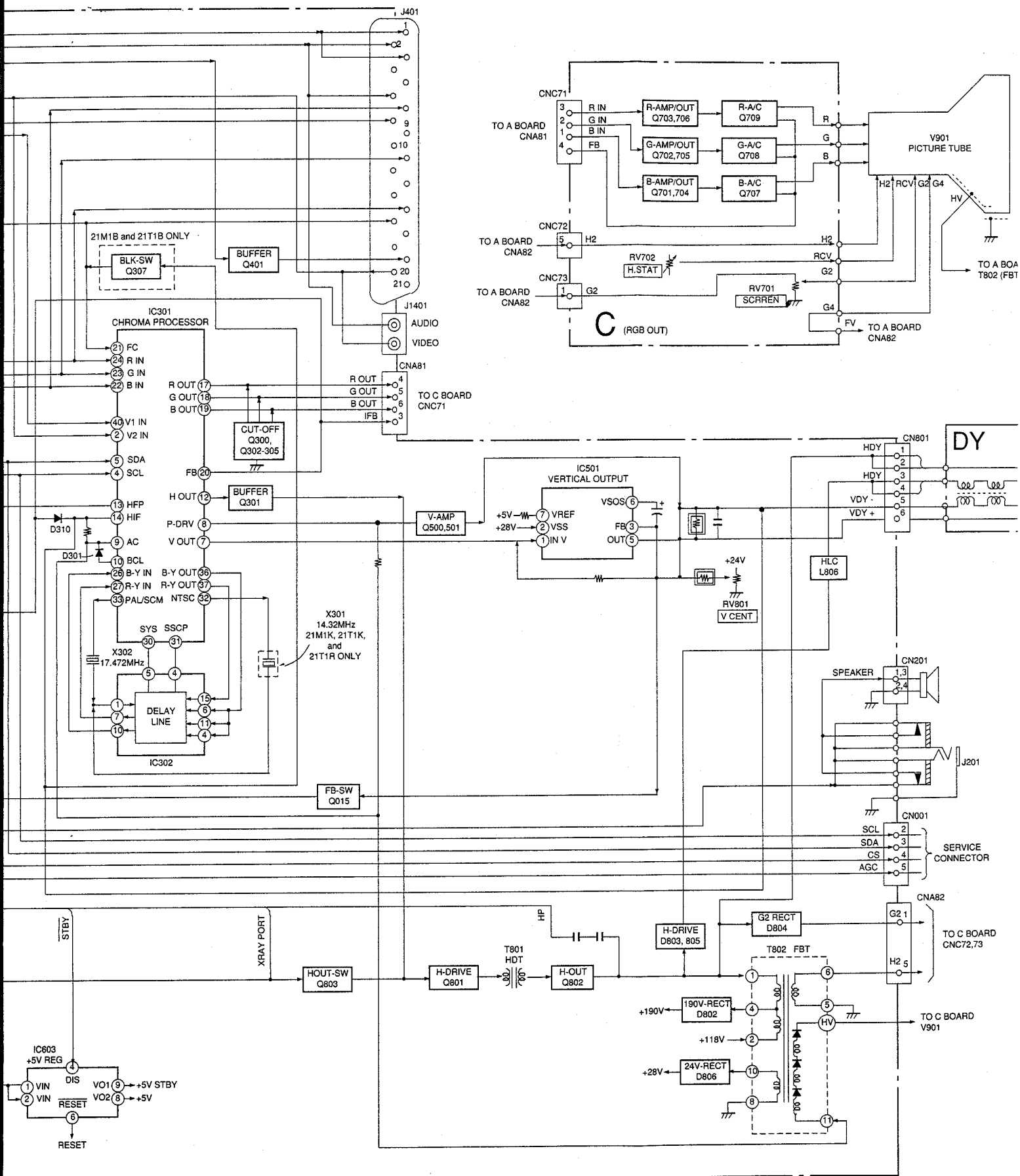
Stby LED



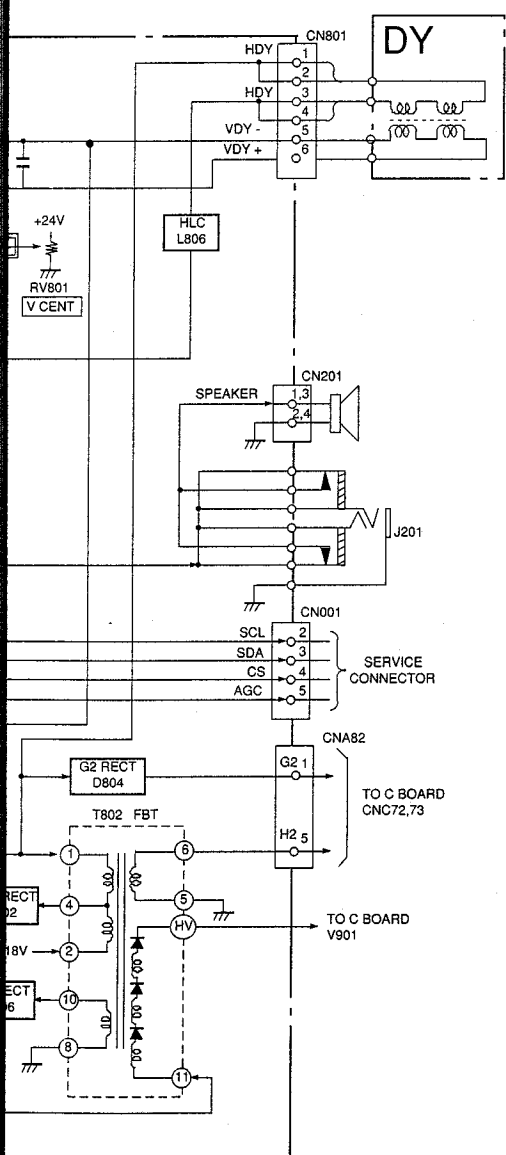
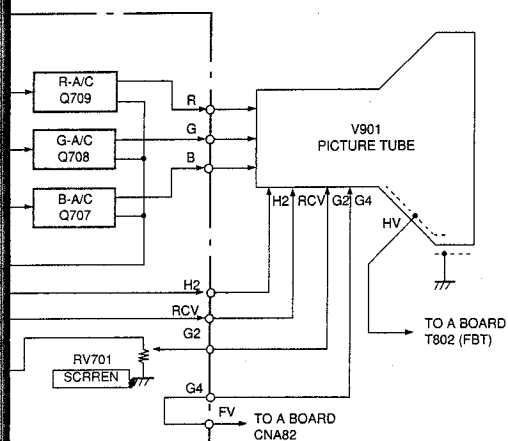
Note : Deflection System Adjustments should not be carried out whilst using an NTSC (60Hz) signal, or if the signal is unlocked.







5-2. CIRCUIT.






5-3. SCHEMA

Note :

- All capacitors 50WV or less, tantalums.
- All resistors $k = 1000$, M
- Indication of electrical power

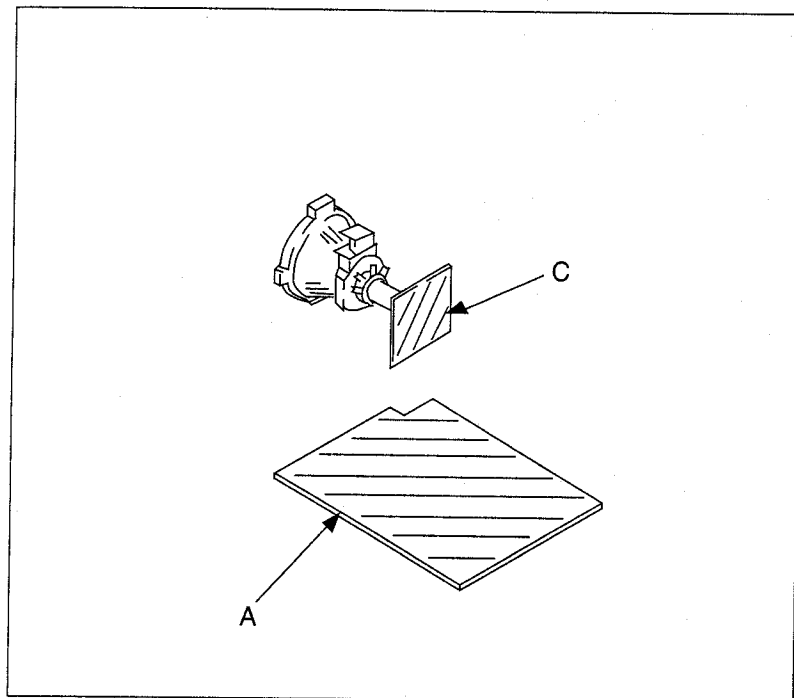
Pitch : 5 mm
Rating electr

-  : no
-  : int
-  : pa
- All variable a
- B, unless oth
- \perp : ea
- π : ea
- $\#$: no

Note : The components \triangle are called part numbers.

Note : Les comp
marque
Ne les re
numero s

5-2. CIRCUIT BOARDS LOCATION



5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note :

- All capacitors are in μF unless otherwise noted. pF: μpF
50WV or less are not indicated except for electrolytic and tantalums.
- All resistors are in ohms.
k = 1000 , M = 1000K
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5 mm

Rating electrical power $\frac{1}{4}$ W

- : nonflammable resistor.
- : internal component.
- : panel designation, or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- \perp : earth - ground.
- π : earth - chassis.
- $\#$: no mounted.

Note : The components identified by shading and marked are critical for safety. Replace only with the part number specified.

Note : Les composants identifiés par une trame et une marque sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
COIL	:	ADJUSTABLE RESISTOR
	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

- Readings are taken with a colour-bar signal input.
- Readings are taken with 10M Ω digital multimeter.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
- Circled numbers are waveform references.
- : B+ bus.
- : signal path. (RF)

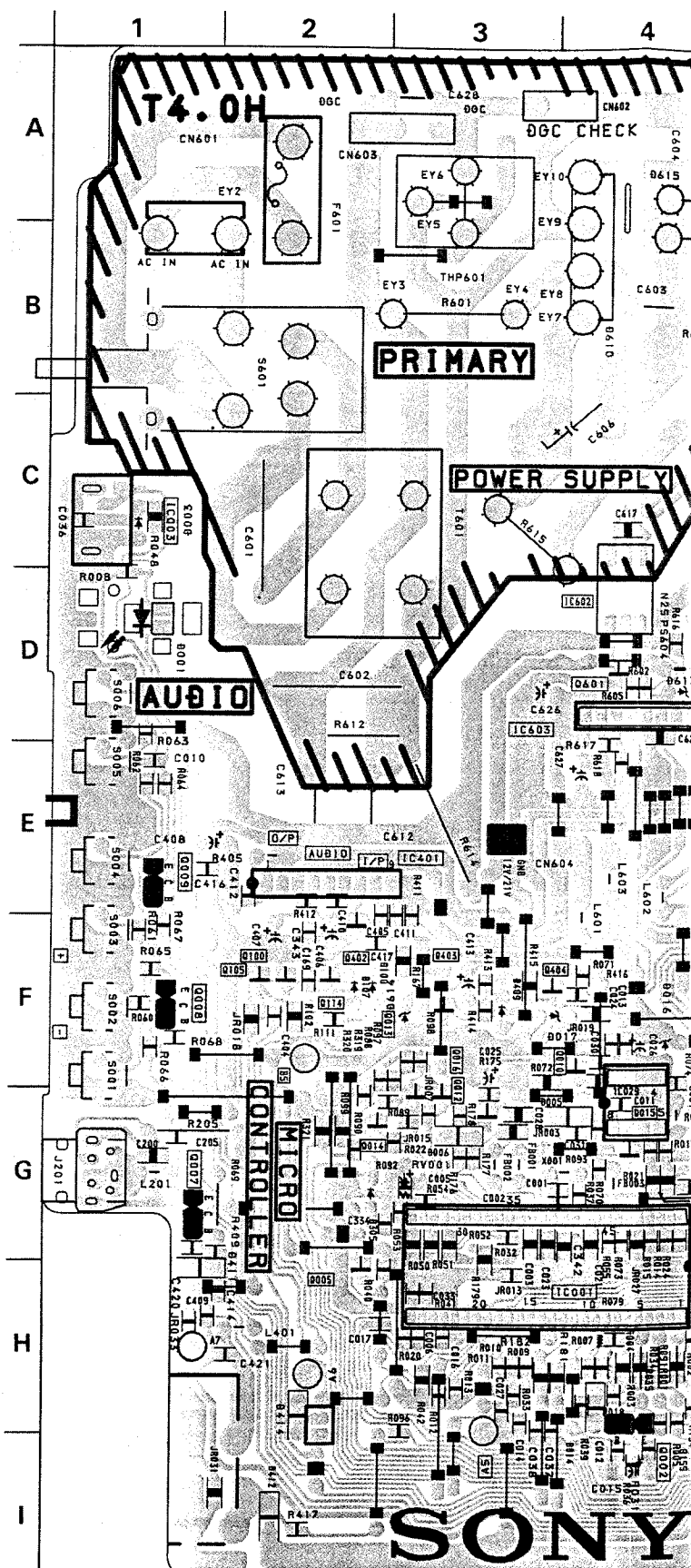
A BOARD

IC					
IC001	I-4	Q303	G-7	D402	H-5
IC002	G-4	Q304	F-7	D403	H-12
IC003	C-1	Q305	G-7	D404	H-12
IC101	G-10	Q306	G-8	D405	H-12
IC301	G-5	Q307	F-8	D406	H-11
IC302	H-7	Q308	H-7	D407	G-12
IC401	E-3	Q401	H-10	D408	I-12
IC501	D-9	Q402	F-2	D409	F-3
IC601	A-5	Q403	F-3	D410	I-11
IC603	D-3	Q404	F-4	D412	I-2
TRANSISTOR		Q600	D-6	D414	H-2
		Q602	D-6	D501	E-8
Q001	H-8	Q801	E-6	D600	D-6
Q002	I-4	Q802	C-9	D601	A-6
Q005	H-2	Q803	E-5	D602	B-6
Q006	H-9	Q804	C-7	D603	A-5
Q007	G-1	Q805	B-7	D604	B-6
Q008	F-1	DIODE		D605	B-6
Q009	E-1			D606	D-6
Q011	H-8	D001	D-1	D607	E-6
Q012	G-3	D002	F-8	D608	D-5
Q013	F-3	D003	C-1	D610	B-4
Q014	G-2	D004	F-5	D611	D-6
Q015	G-4	D005	G-4	D612	E-5
Q016	F-3	D006	G-3	D613	E-3
Q100	F-2	D014	I-4	D614	F-3
Q101	G-11	D016	G-4	D801	E-7
Q102	G-11	D100	F-3	D802	A-8
Q103	G-11	D102	G-11	D803	C-11
Q105	F-2	D104	G-11	D804	B-10
Q107	H-9	D105	F-8	D805	C-10
Q109	G-10	D106	F-8	D806	A-11
Q110	H-5	D107	F-2	D807	E-5
Q111	G-8	D109	F-9	D809	A-8
Q112	G-12	D301	F-6	VARIABLE RESISTOR	
Q113	G-9	D302	F-7		
Q114	F-2	D305	G-2	RV102	H-10
Q115	F-10	D307	G-11	RV801	E-9
Q116	F-9	D308	F-8		
Q300	F-7	D310	F-5		
Q301	F-6	D315	G-5		
Q302	F-7	D401	H-12		

A

SYSTEM CONTROL, HORIZONTAL OUTPUT,
VERTICAL OUTPUT, CHROMINANCE,
POWER, AUDIO

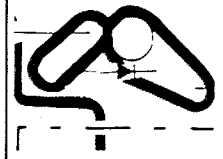
— A BOARD —



KV-21M1/T1

KV-21M1/T1

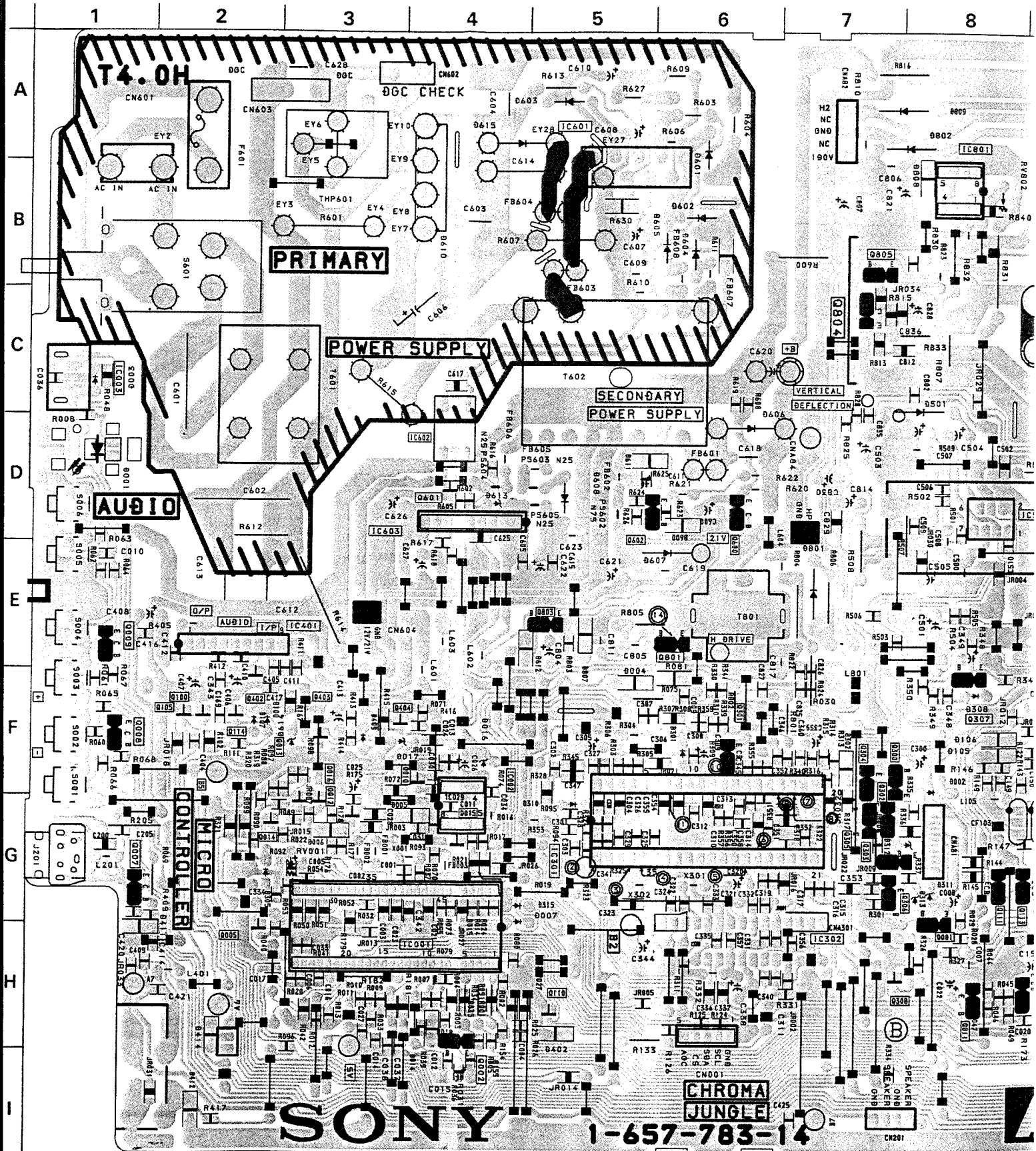
NOTE:
The circled
600 Vp-p
inspection

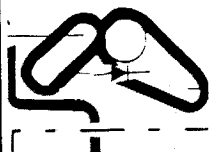


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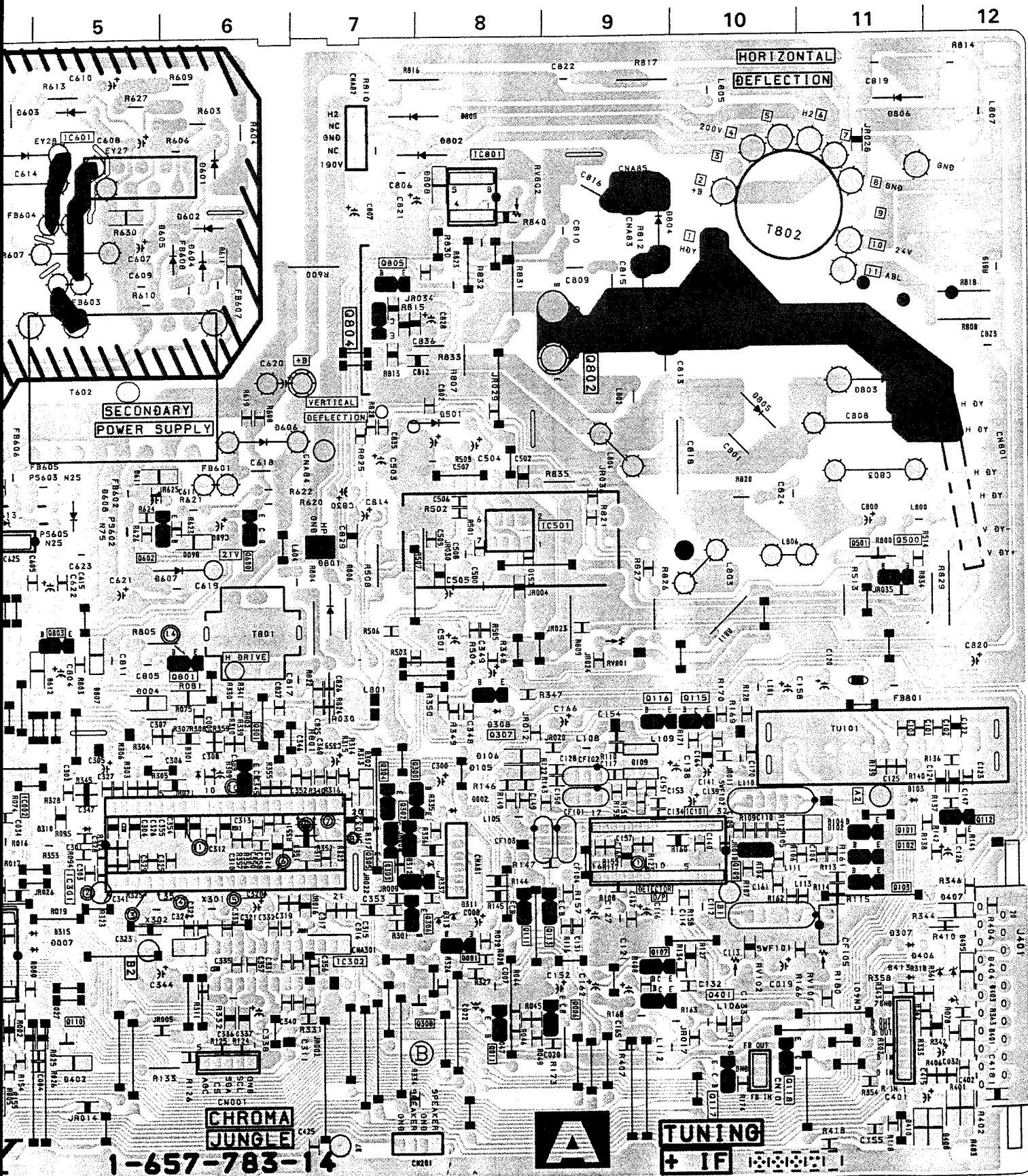
SYSTEM CONTROL, HORIZONTAL OUTPUT,
VERTICAL OUTPUT, CHROMINANCE,
POWER, AUDIO

— A BOARD —



**NOTE:**

The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.



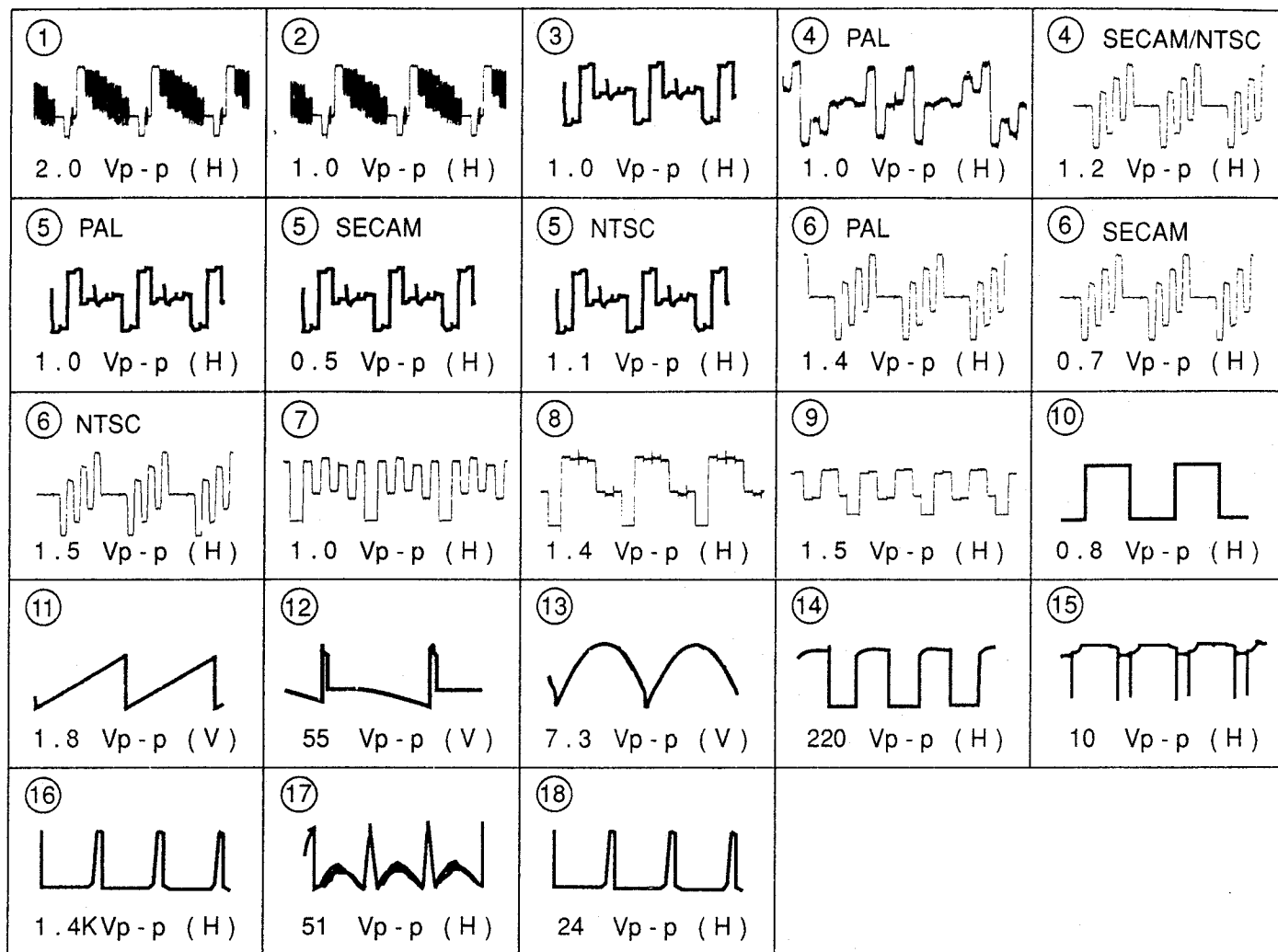
A BOARD * MARK

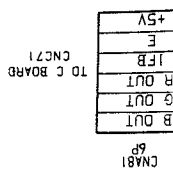
	21M1A/21T1A	21M1B/21T1B	21M1D/21T1D	21M1E/21T1E	21M1K/21T1K	21M1L/21T1L	21T1R	21M1U/21T1U
C016	0.47MF	0.47MF	0.47MF	0.47MF	0.47MF	0.47MF	—	0.47MF
C017	0.47MF	0.47MF	0.47MF	0.47MF	0.47MF	0.47MF	—	0.47MF
C112	—	0.1MF	—	—	—	—	—	—
C114	0.22MF	0.1MF	0.22MF	0.22MF	0.22MF	0.22MF	0.22MF	0.22MF
C116	—	2.2 50V	—	—	—	—	—	—
C120	1000MF 10V	1000MF 10V	1000MF 10V	470MF 10V	470MF 10V	470MF 10V	470MF 10V	470MF 10V
C131	—	—	—	—	0.001MF	—	0.001MF	—
C151	—	—	—	—	0.001MF	0.001MF	0.001MF	0.001MF
C153	—	—	—	—	15PF	15PF	15PF	15PF
C164	—	1MF	—	—	—	—	—	—
C322	—	—	—	—	18PF	—	18PF	—
C348	—	0.01MF	—	—	—	—	—	—
C349	—	22MF 50V	—	—	—	—	—	—
CF101	5.5/5.74MHz	5.5/6.5MHz	5.5/5.74MHz	5.5/5.74MHz	5.5/5.74MHz	6.0/6.5MHz	5.5/5.74MHz	6.0/6.5MHz
CF102	—	—	—	—	6.5MHz	—	6.5MHz	—
CF103	5.5MHz	5.5MHz	5.5MHz	5.5MHz	5.5MHz	6.0MHz	5.5MHz	6.0MHz
CF104	—	—	—	—	6.5MHz	—	6.5MHz	—
CF105	—	5.5MHz	—	—	—	—	—	5.5MHz
CN201	3P	3P	4P(M1), 3P(T1)	3P	4P	3P	4P	3P
CN602	2P	2P	2P	2P	—	—	—	—
D105	—	—	—	—	1SS133T	—	1SS133T	—
D106	—	—	—	—	1SS133T	—	1SS133T	—
D109	—	—	—	—	1SV214	1SV214	1SV214	1SV214
D307	—	1SS133T	—	—	—	—	—	—
D308	—	1SS133T	—	—	—	—	—	—
IC001	Refer to "A board * mark-2" table							
IC101	TDA9806	TDA9812	TDA9806	TDA9806	TDA9806	TDA9806	TDA9806	TDA9806
IC301	MC44007P	MC44002P	MC44002P	MC44007P	MC44002P	MC44007P	MC44002P	MC44007P
JR011	—	0 : CHIP	—	—	—	—	—	—
L108	8.2μH	8.2μH	8.2μH	8.2μH	4.7μH	8.2μH	4.7μH	8.2μH
L802	CHOKE COIL	CHOKE COIL	CHOKE COIL	CHOKE COIL	AIR-CORE COIL	AIR-CORE COIL	AIR-CORE COIL	AIR-CORE COIL
Q111	—	—	—	—	DTC144ES	—	DTC144ES	—
Q113	—	—	—	—	DTC144ES	—	DTC144ES	—
Q307	—	2SA933AS	—	—	—	—	—	—
Q308	—	DTC144EK	DTC144EK	—	DTC144EK	—	DTC144EK	—
R006	47K	33K	33K	47K	33K	47K	33K	47K
R122	150	150	150	150	100	150	100	150
R134	180	180	180	180	180	150	180	150
R143	0	0	0	0	0	0	2.2K	0
R144	—	—	—	—	2.2K	—	2.2K	—
R145	—	—	—	—	2.2K	—	2.2K	—
R147	—	—	—	—	560	—	560	—
R149	—	—	—	—	2.2K	—	2.2K	—
R151	—	—	—	—	100K	100K	100K	100K
R153	—	—	—	—	100K	100K	100K	100K
R157	—	1K	—	—	—	—	—	—
R158	390	180	390	390	390	390	390	390
R161	0 : CHIP	—	0 : CHIP	0 : CHIP	0 : CHIP	0 : CHIP	0 : CHIP	0 : CHIP
R180	—	1K	—	—	—	—	—	—
R326	—	82K	82K	—	82K	—	82K	—
R327	—	100K	100K	—	100K	—	100K	—
R347	—	470	—	—	—	—	—	—
R348	—	10K	—	—	—	—	—	—
R349	—	220K	—	—	—	—	—	—
R350	—	220	—	—	—	—	—	—
R351	—	8.2M	8.2M	—	8.2M	—	8.2M	—
R410	75	75	75	75	75	68	75	68
RV102	—	22K	—	—	—	—	—	—
SWF101	OPWG1963	OFWK3953	OPWG1963	OPWG1963	OFWK2950	OFWJ1952M	OFWK2950	OFWJ1952M
TU101	BT-AC401	TELE4-002B	TELE4-002B	BT-AC401	BT-AC401	UV1315	TELE4-002B	BT-AU601
X301	—	—	—	—	14.32MHz	—	14.32MHz	—

A BOARD * MARK-2 (IC001)

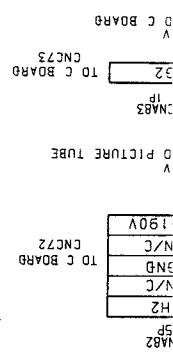
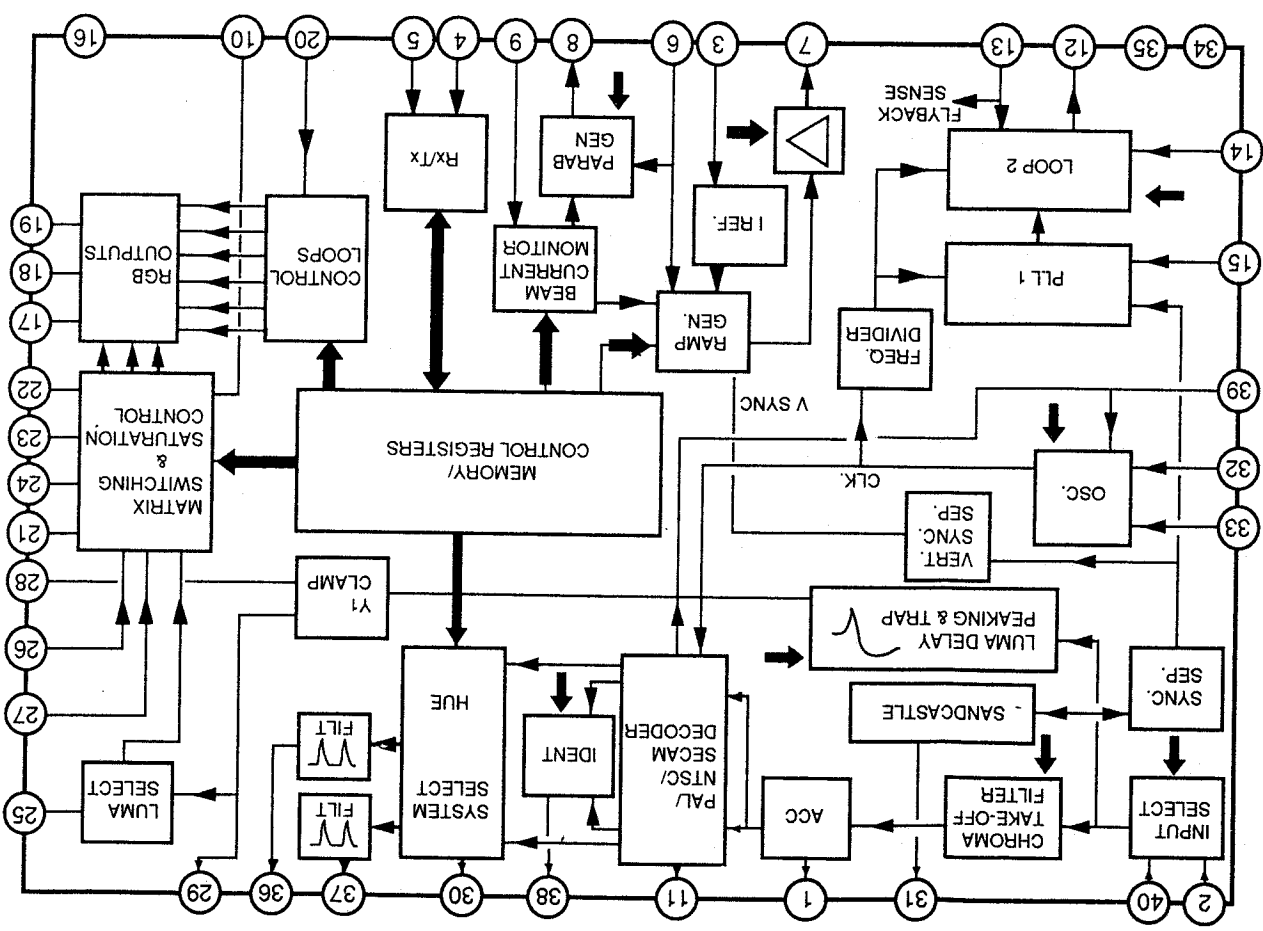
KV-21M1A/21M1B/21M1D/21M1E/21M1K/21M1L/21M1U	SAA5288ZP/014
KV-21T1A/21T1B/21T1D/21T1E/21T1K/21T1L/21T1R/21T1U	SAA5290ZP/014

WAVEFORMS A BOARD

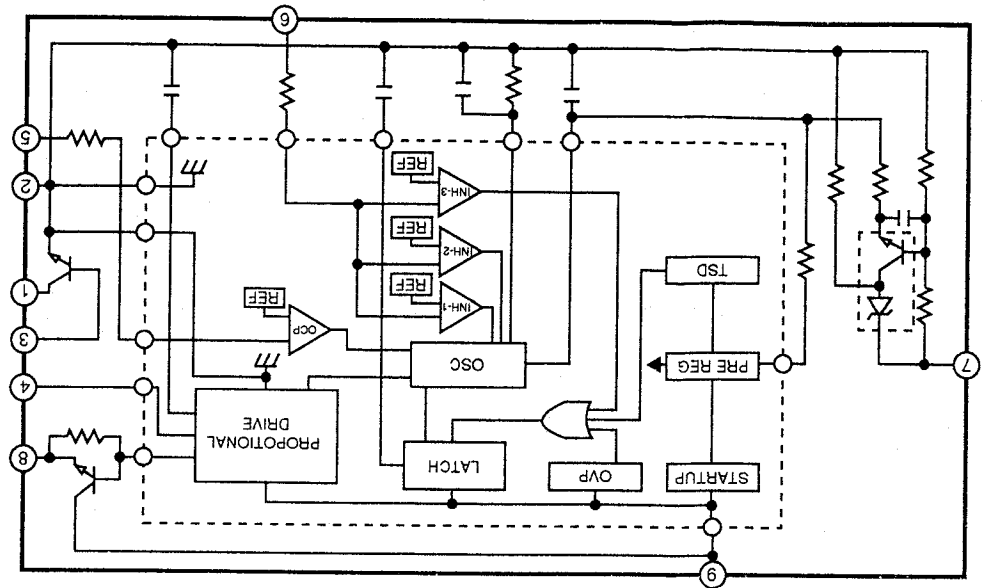


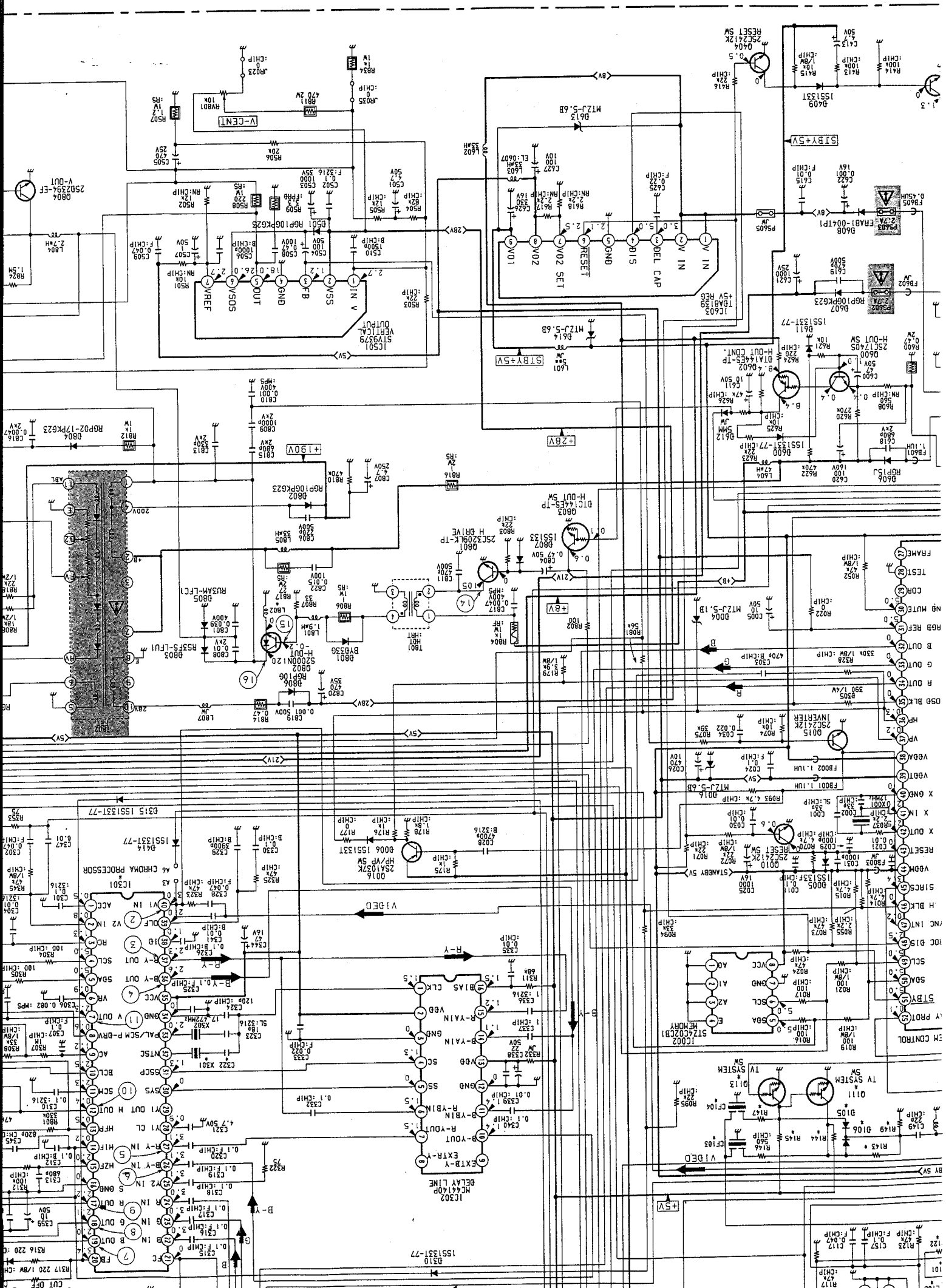


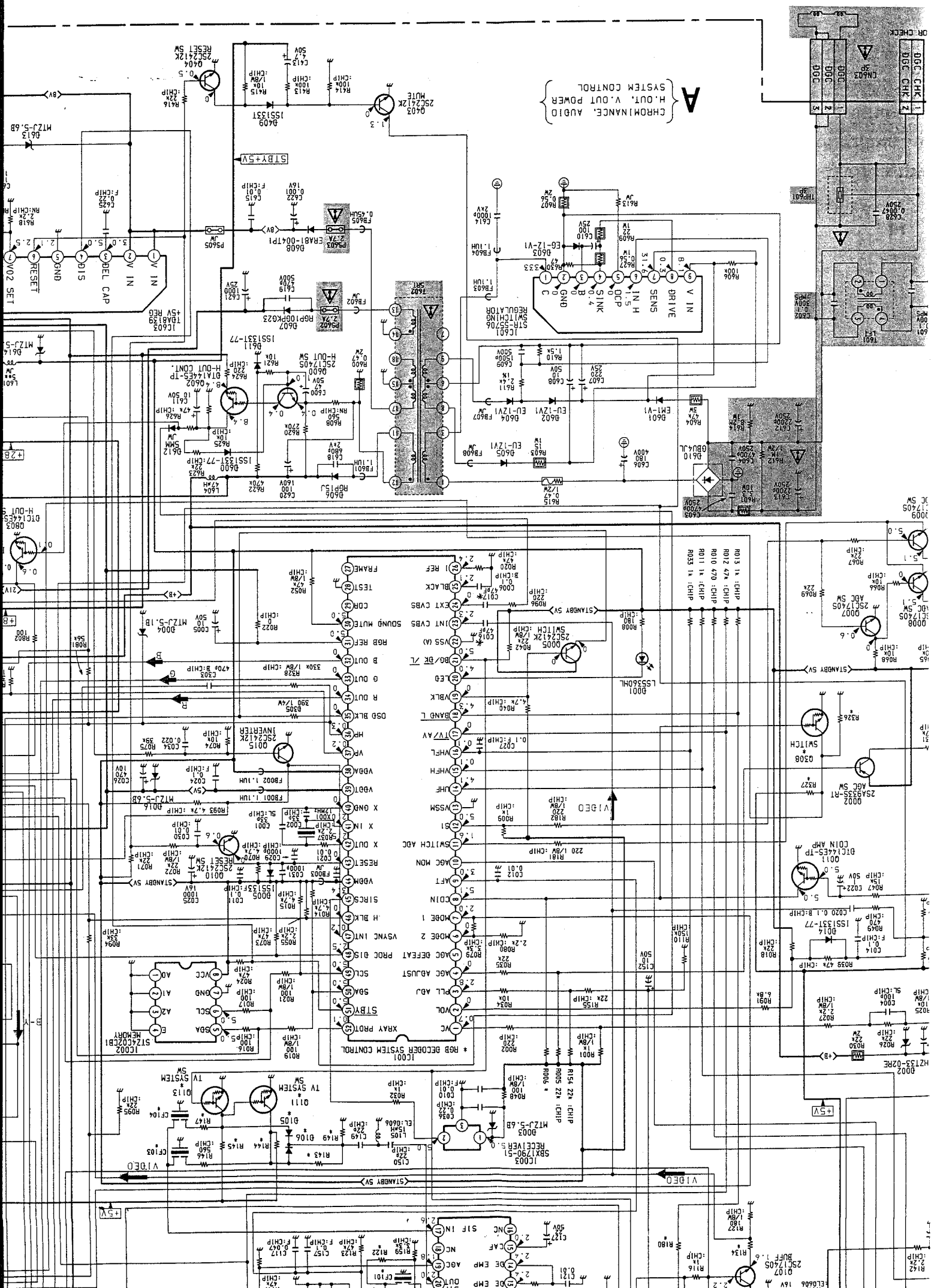
A BOARD IC301 MC44002P/MC44007P



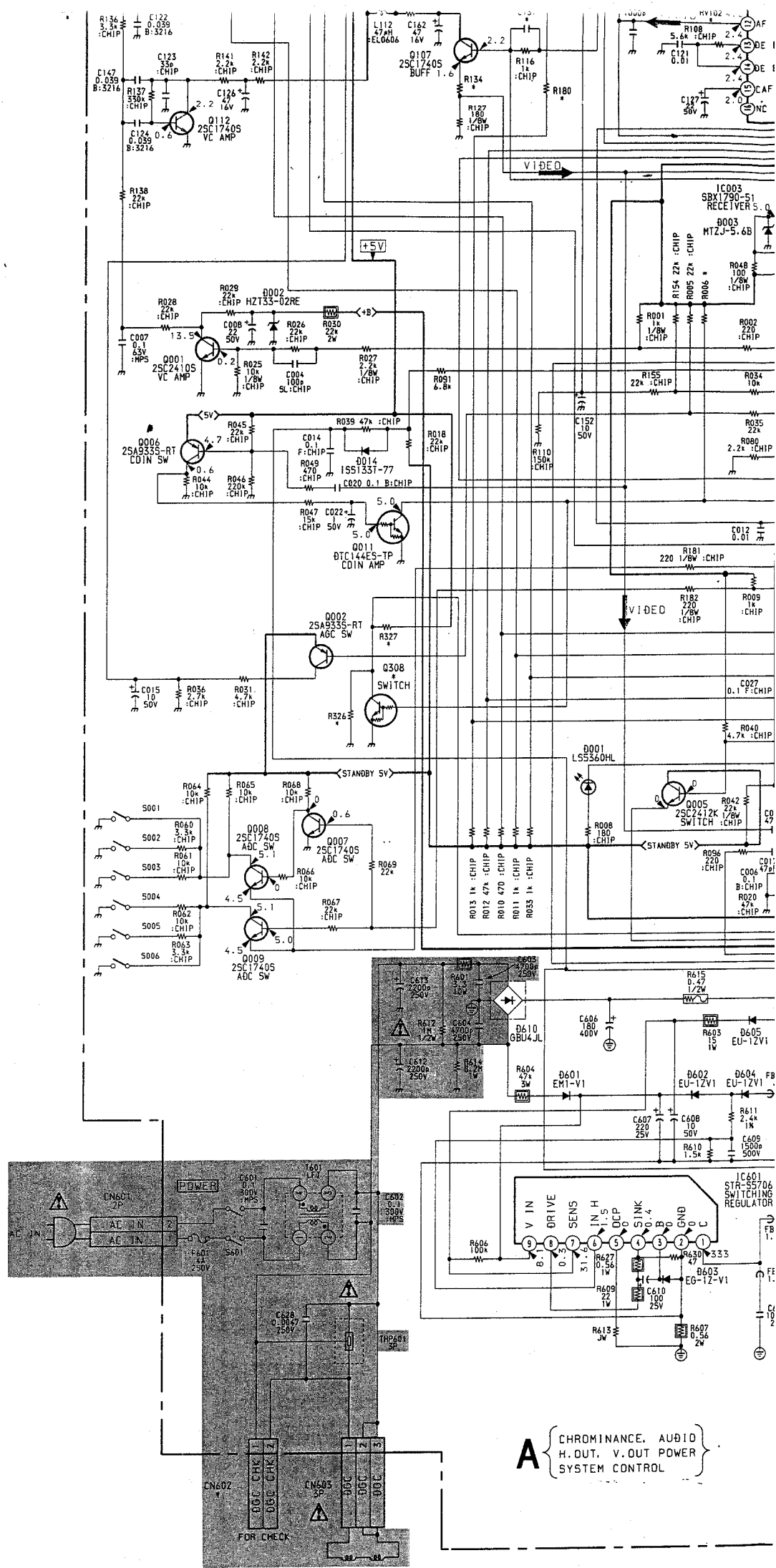
A BOARD IC601 STRS5706



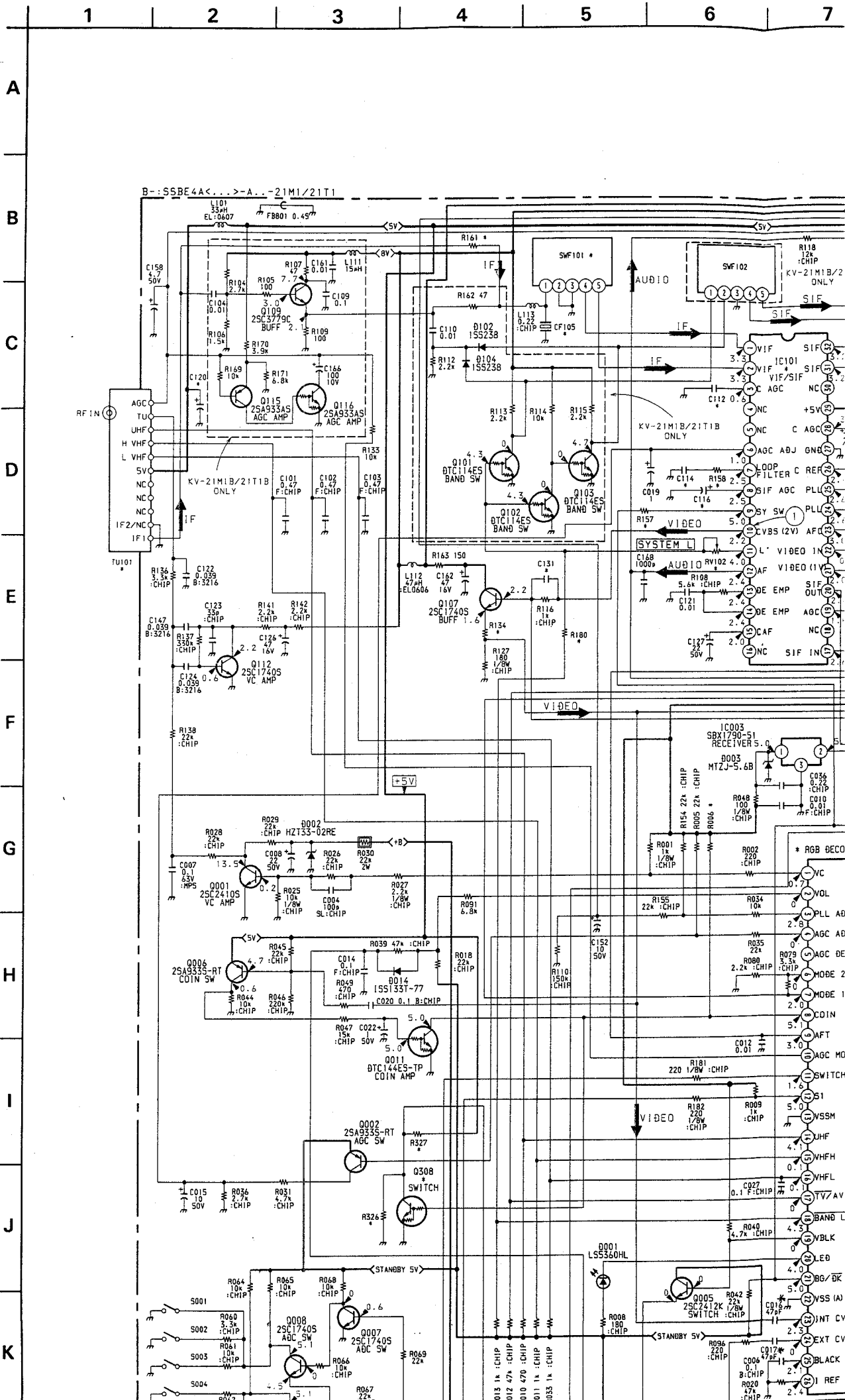


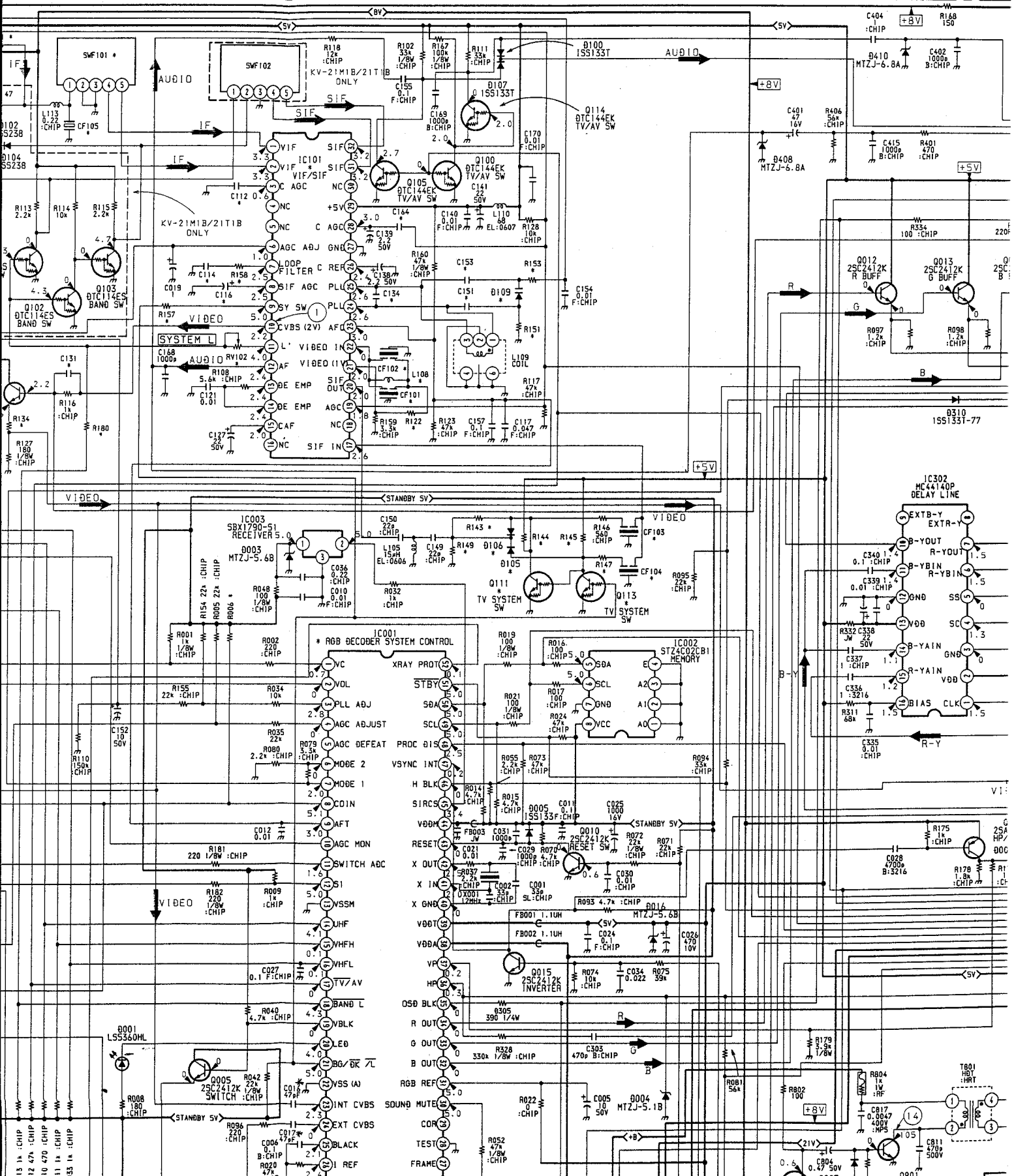


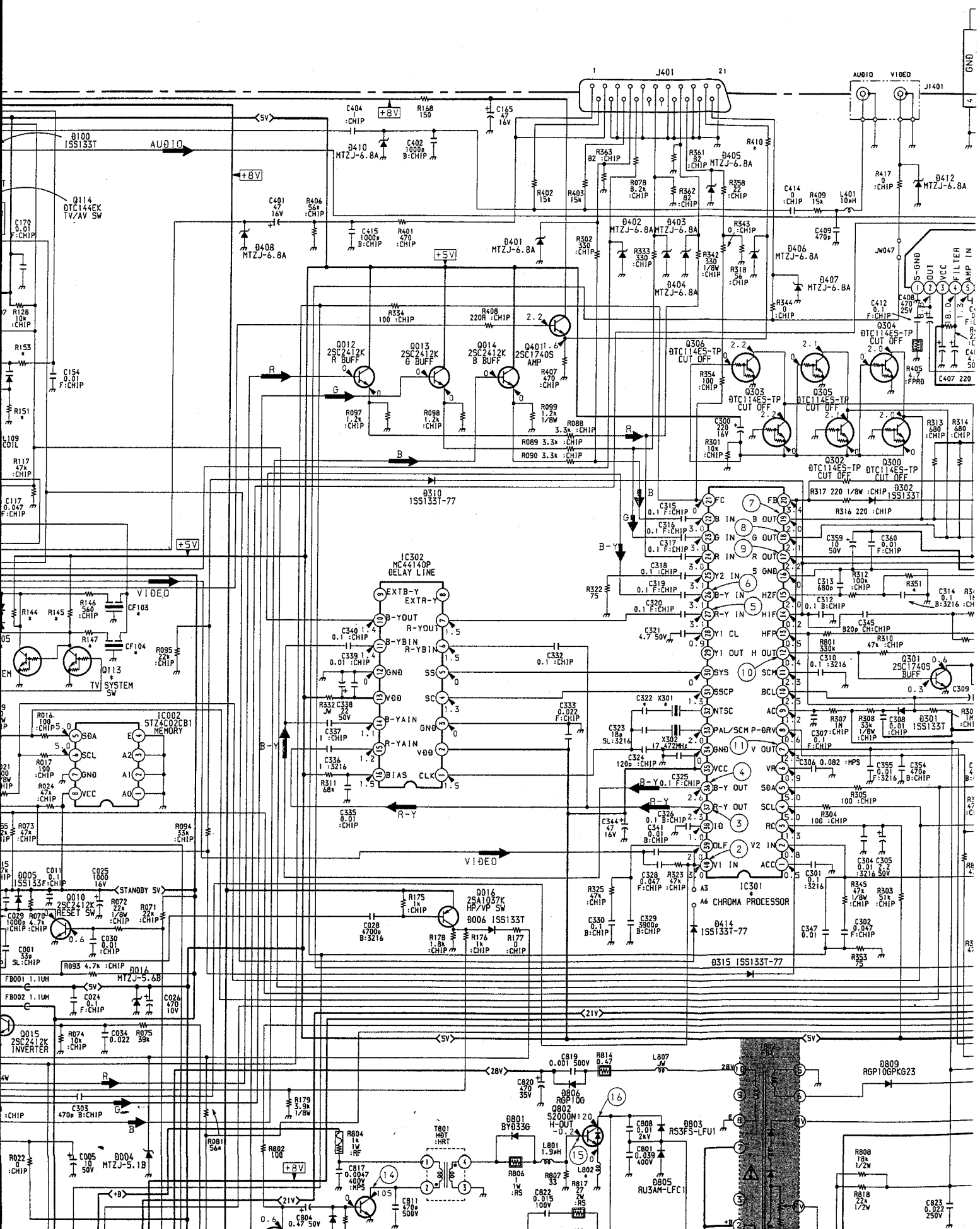
E
F
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J
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M
N
O

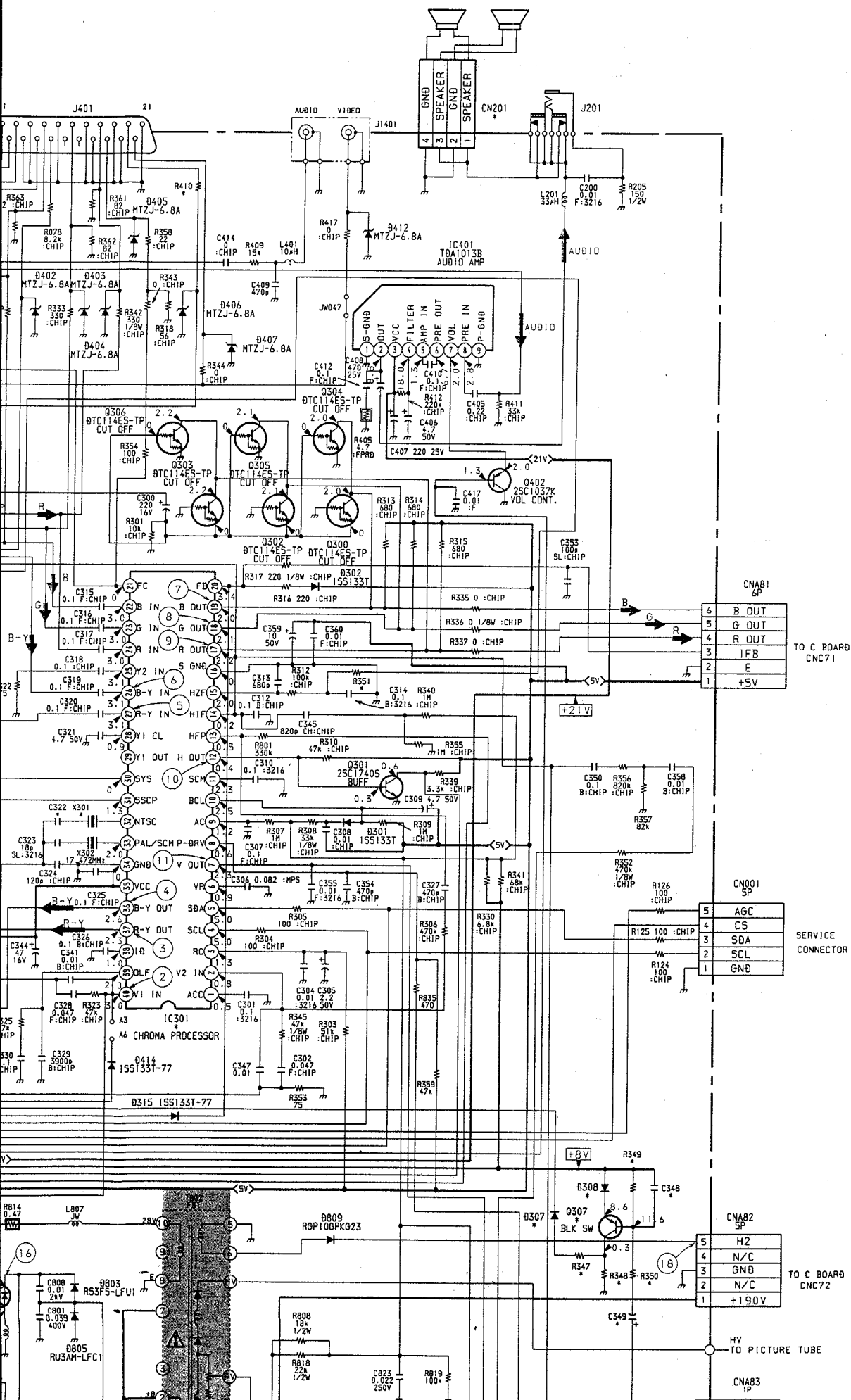


A { CHROMINANCE, AUDIO }
H. OUT, V. OUT POWER
SYSTEM CONTROL

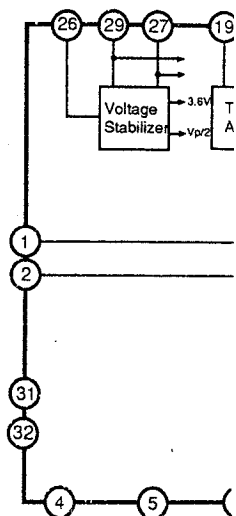




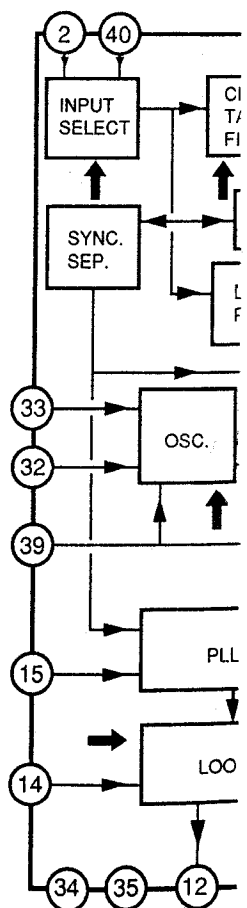




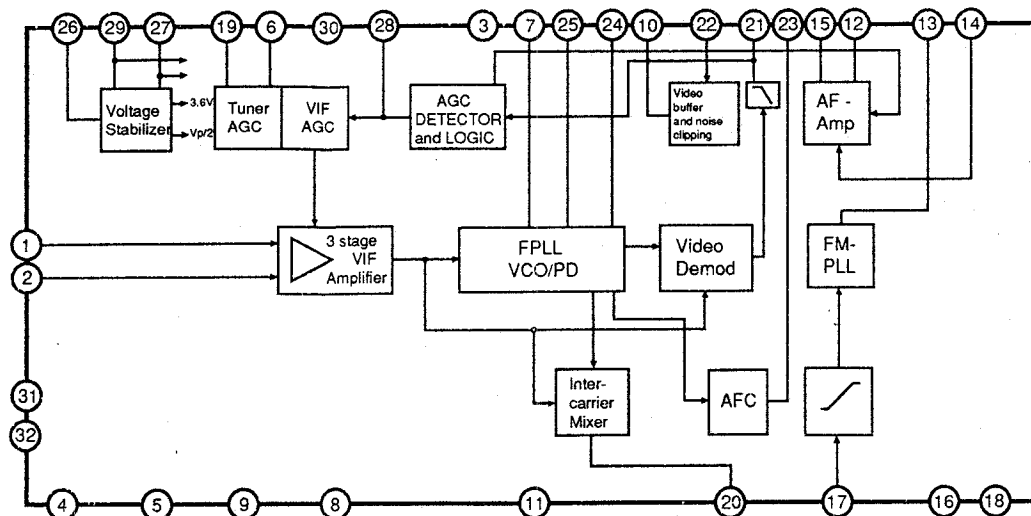
A BOARD IC101



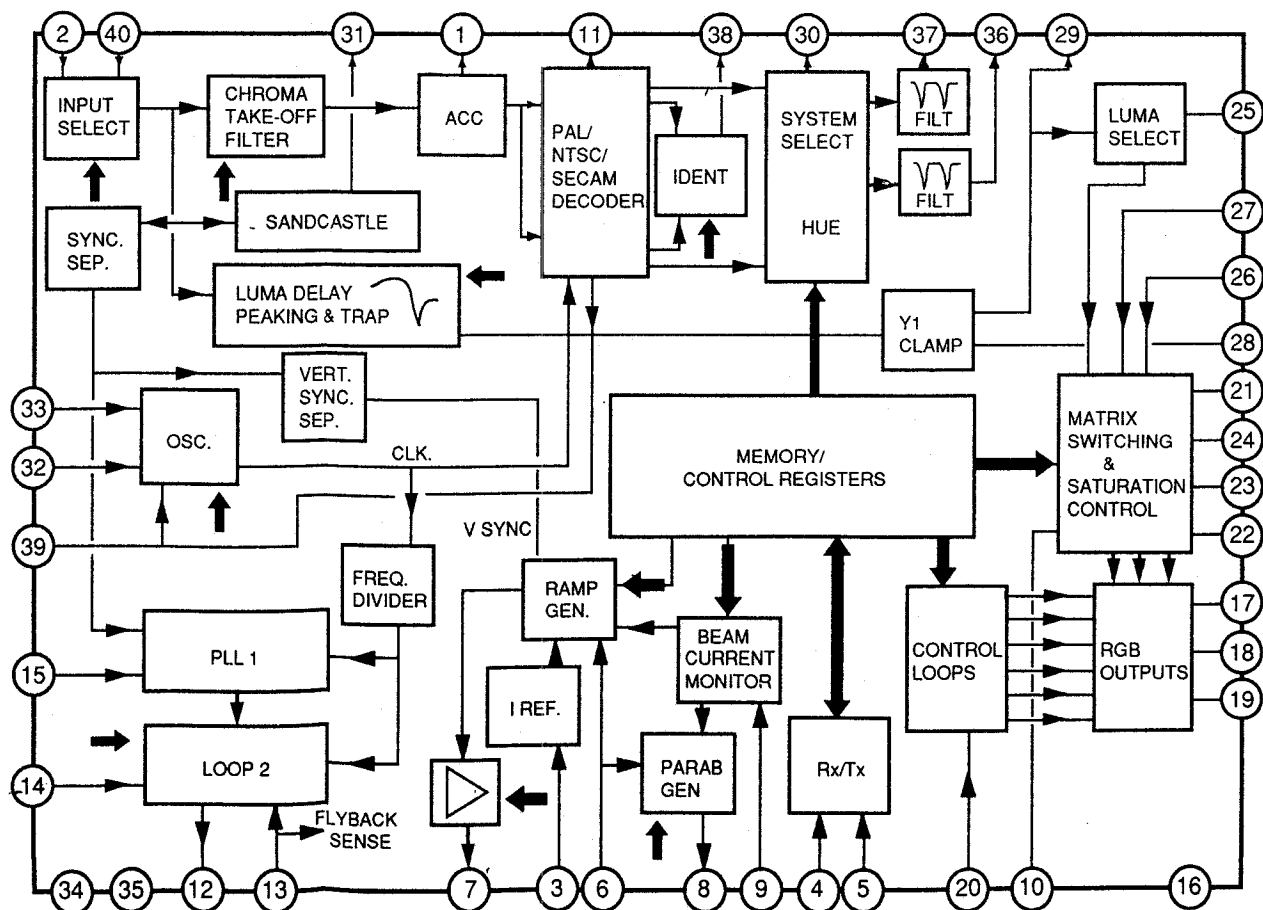
A BOARD IC301



A BOARD IC101 TDA9806/TDA9812

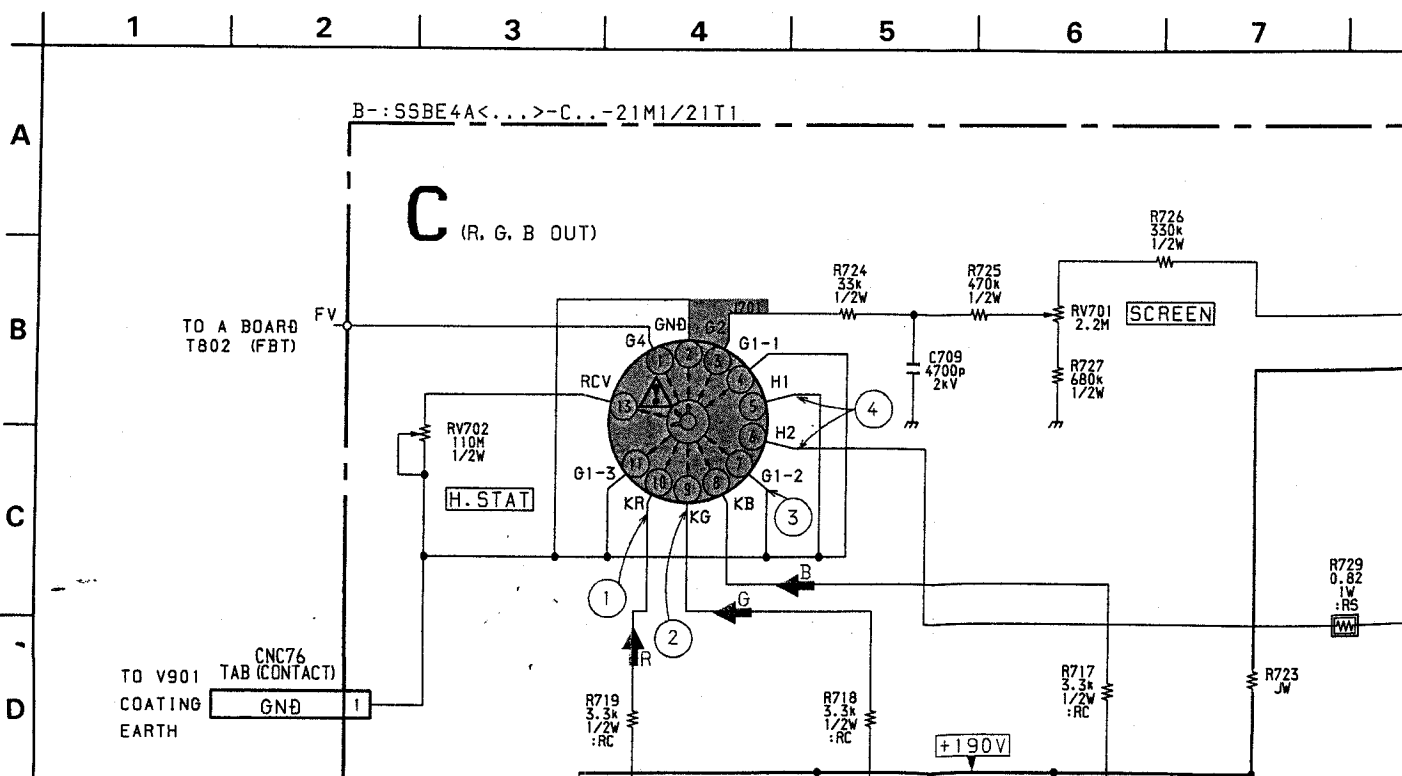
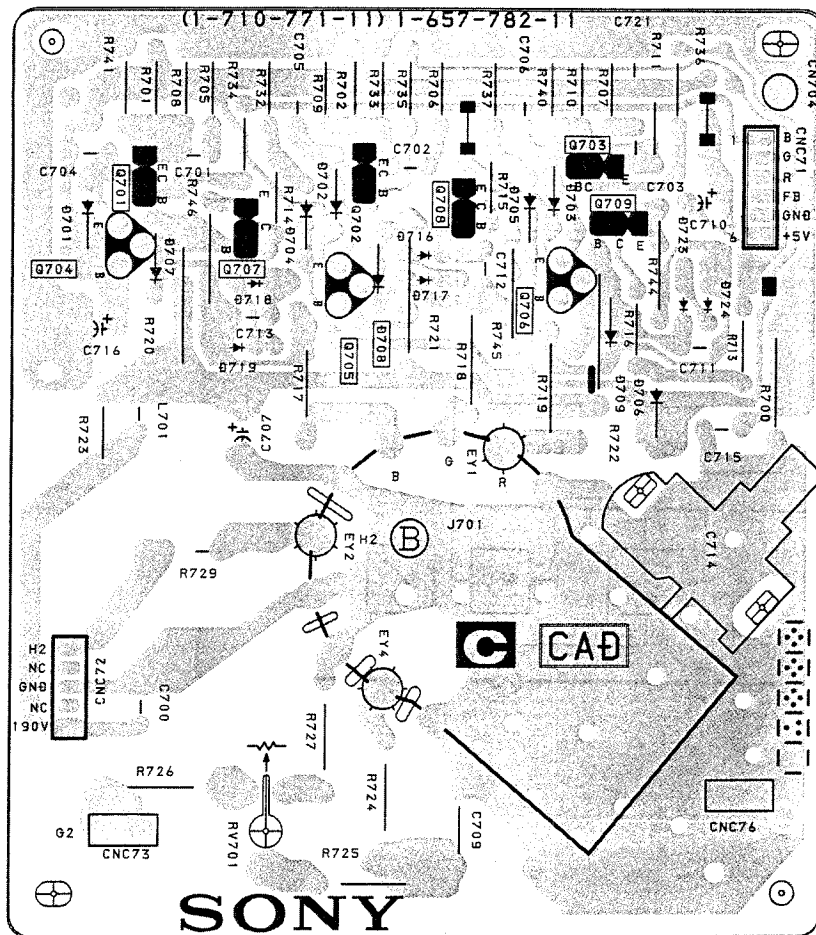


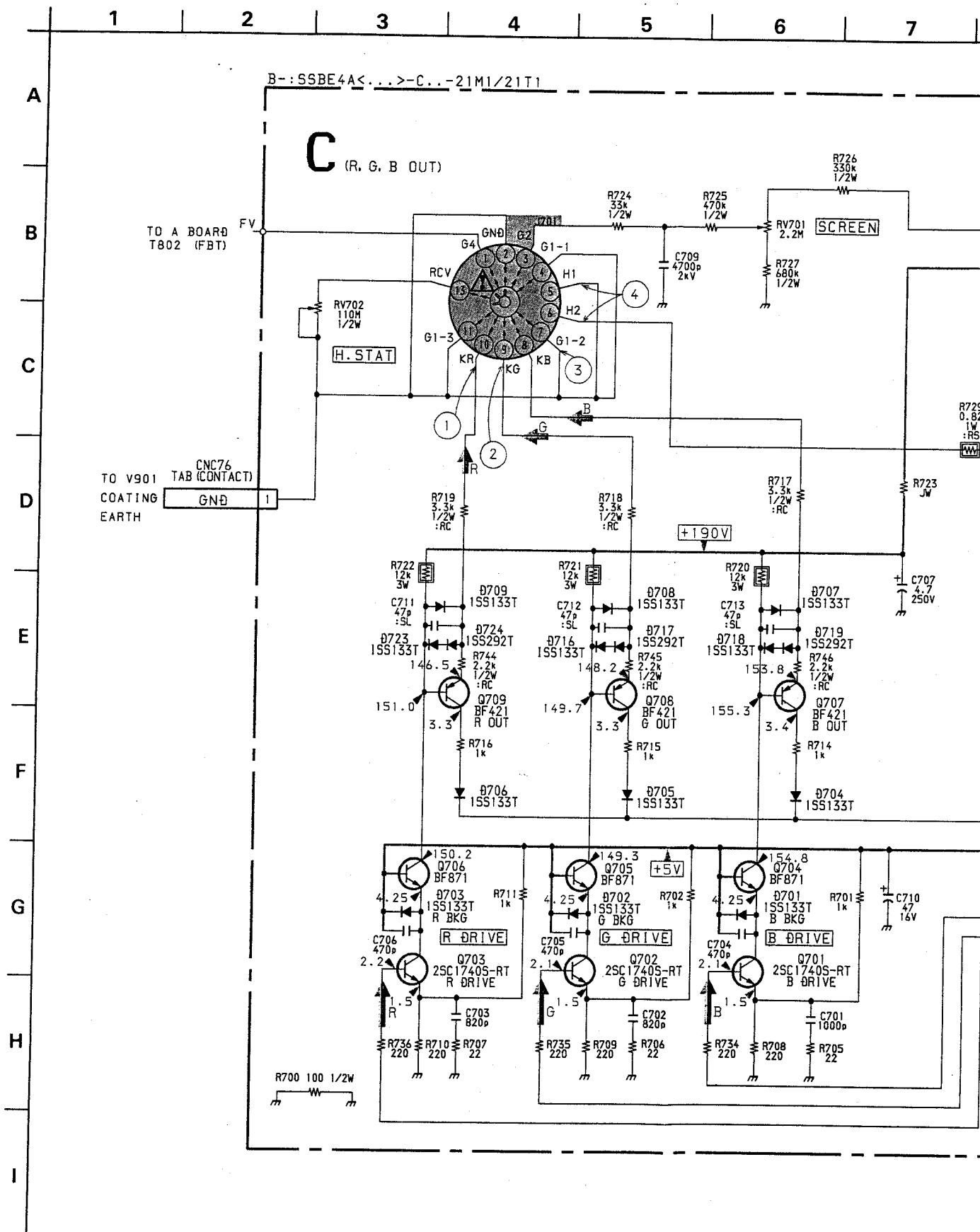
A BOARD IC301 MC44002P/MC44007P



C [R.G.B OUT]

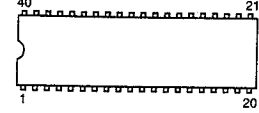
— C BOARD —





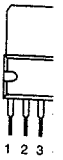
5-4. SEMICONDUCTORS

MC44002P
MC44007P

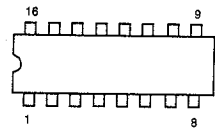


(TOP VIEW)

TDA810

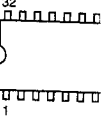


MC44140P



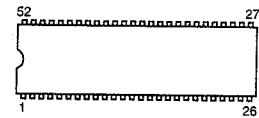
(TOP VIEW)

TDA980
TDA980



(TO

SAA5288ZP/014
SAA5290ZP/014

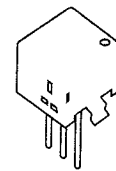


(TOP VIEW)

BF421
2SA109



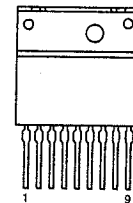
SBX1790-51



BF871-1



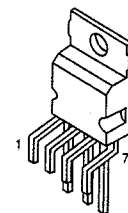
STR-S5706



DTA1440
DTC1140
DTC1440



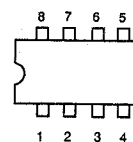
STV9379



DTC1440
2SA1162
2SA1037
2SC2412



ST24C02CB1

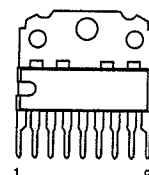


(TOP VIEW)

S2000N-1



TDA1013B



8 9 10 11 12

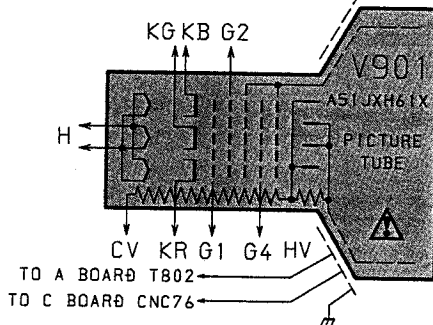
CNC73
TAB-CONTACT

1 G2

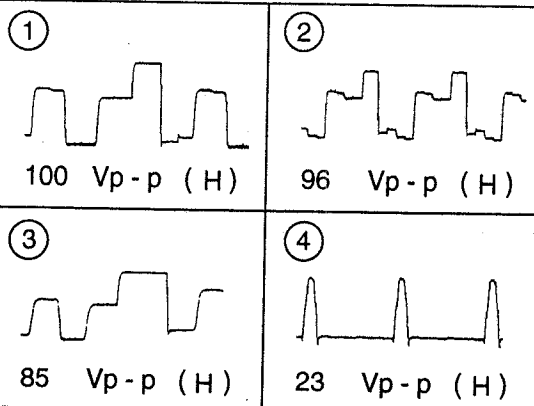
1 +190V
2 N/C
3 E
4 N/C
5 H2

TO A BOARD
CNA82

CNC72
5P



WAVEFORMS C BOARD



CNC71
6P

1 B IN
2 G IN
3 R IN
4 FB
5 E
6 +5V

TO A BOARD
CNA81

5

6

7

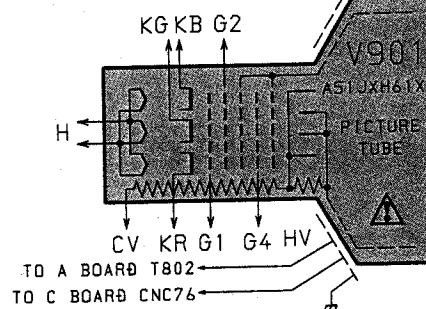
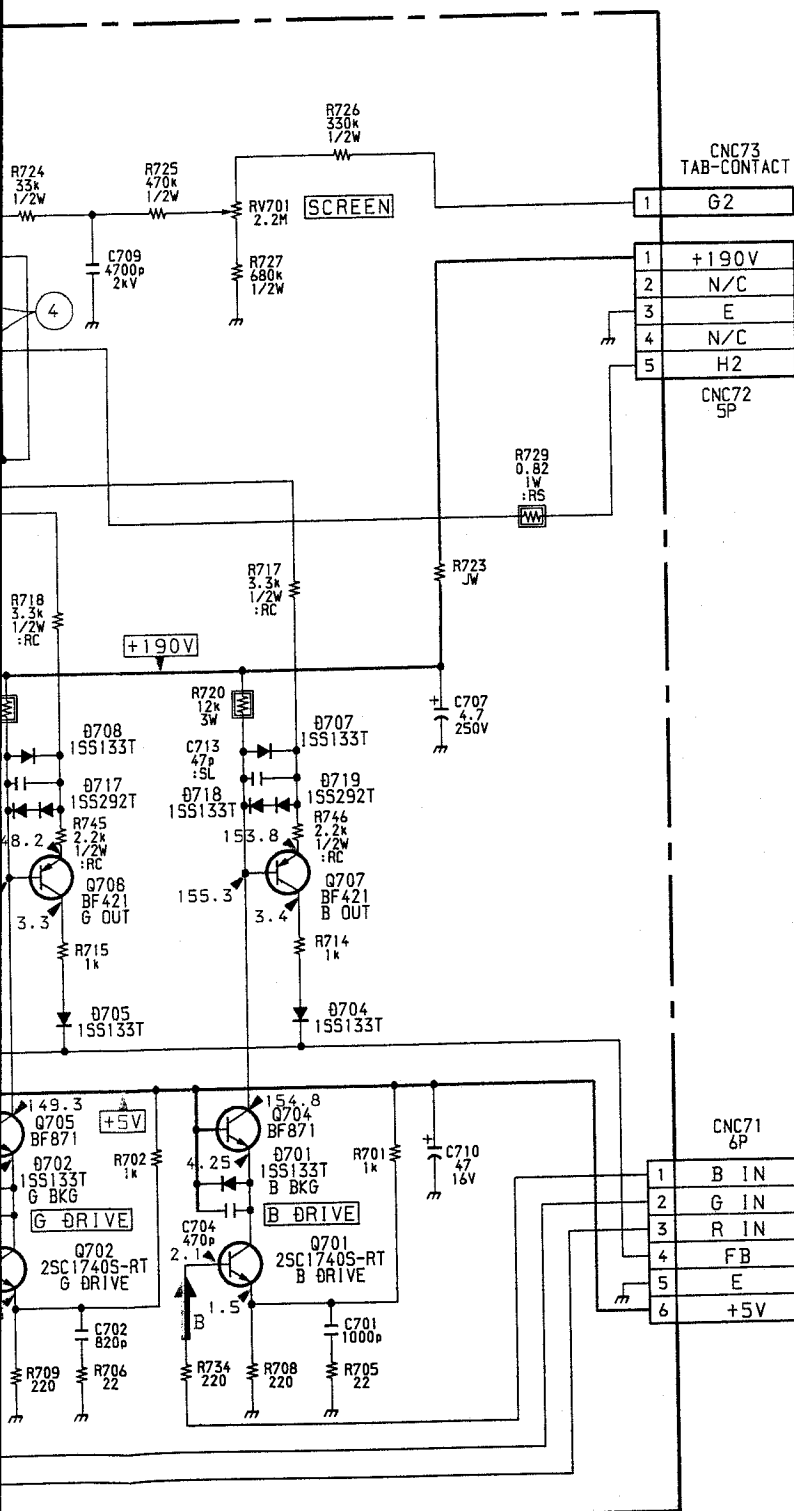
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9

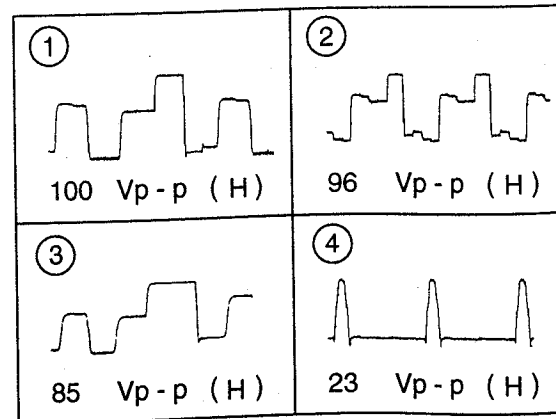
10

11

12



WAVEFORMS C BOARD





SECTION 6

EXPLODED VIEWS

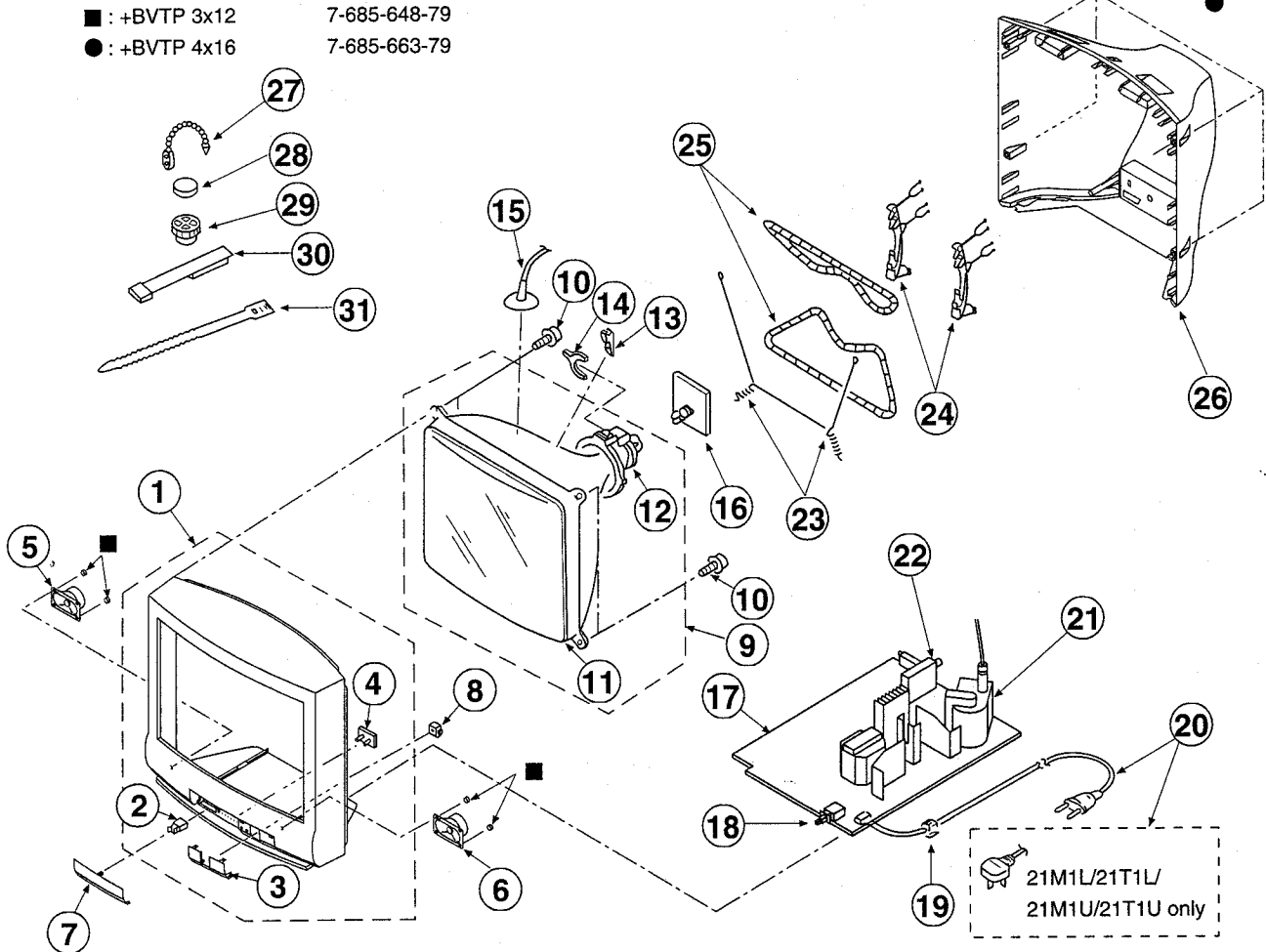
NOTE :

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and marked  are critical for safety.
Replace only with the part number specified.

Les composants identifiés par une trame et une marque  sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

6-1. CHASSIS



REF NO	PART NO	DESCRIPTION	REMARK	REF NO	PART NO	DESCRIPTION	REMARK
1	X-4200-265-1	BEZNET ASSY	2-4	8	4-203-433-01	BUTTON, POWER	
2	4-047-464-01	CATCHER, PUSH		10	4-036-190-01	SCREW (5), TAPPING	
3	4-203-432-01	WINDOW		13	3-704-495-01	SPACER, DY	
4	*4-203-431-01	GUIDE, LIGHT		14	1-452-277-00	MAGNET, BMC	
5	1-504-899-11	SPEAKER (9X5CM) (KV-21M1K/21T1K/21T1R)		16	*A-1638-074-A	C BOARD, COMPLETE	
6	1-503-258-21	SPEAKER (KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D/21M1E/21T1E/21M1L/21T1L/21M1U/21T1U)					
7	4-203-430-01	DOOR (BARE) (KV-21M1A/21M1D/21M1E/21M1K/21M1L/21M1U)					
	4-203-435-21	DOOR (PRINTED) (KV-21T1A/21T1B/21T1D)					
	4-203-435-11	DOOR (PRINTED) (KV-21T1K/21T1L/21T1R/21T1U)					

The components identified by shading and marked with a triangle are critical for safety.

Replace only with the part number specified.

Les composants identifiés par une trame et une marque ! sont critiques pour la sécurité.

Ne les remplacer que par une pièce portant le numéro spécifié.

REF NO	PART NO	DESCRIPTION	REMARK	REF NO	PART NO	DESCRIPTION	REMARK
17	*A-1632-484-A	A BOARD, COMPLETE (KV-21M1A)					
	*A-1632-483-A	A BOARD, COMPLETE (KV-21T1A)					
	*A-1632-482-A	A BOARD, COMPLETE (KV-21M1B)					
	*A-1632-481-A	A BOARD, COMPLETE (KV-21T1B)					
	*A-1632-487-A	A BOARD, COMPLETE (KV-21M1D)					
	*A-1632-480-A	A BOARD, COMPLETE (KV-21T1D)					
	*A-1632-486-A	A BOARD, COMPLETE (KV-21M1E)					
	*A-1632-485-A	A BOARD, COMPLETE (KV-21T1E)					
	*A-1632-477-A	A BOARD, COMPLETE (KV-21M1K)					
	*A-1632-478-A	A BOARD, COMPLETE (KV-21T1K)					
	*A-1632-475-A	A BOARD, COMPLETE (KV-21M1L)					
	*A-1632-476-A	A BOARD, COMPLETE (KV-21T1L)					
	*A-1632-479-A	A BOARD, COMPLETE (KV-21T1R)					
	*A-1632-474-A	A BOARD, COMPLETE (KV-21M1U)					
	*A-1632-473-A	A BOARD, COMPLETE (KV-21T1U)					
18	1-571-433-21	SWITCH PUSH (AC POWER)					
19	*4-202-531-01	AC CORD LOCK (SC)					
20	1-690-270-21	CORD, POWER (WITH CONNECTOR)					
		(KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D/21M1E/21T1E/21M1K/21T1K/21T1R)					
	1-590-762-11	CORD, POWER (WITH PLUG)					
		(KV-21M1L/21T1L/21M1U/21T1U)					
21	1-453- 222 -11	TRANSFORMER ASSY, FLYBACK (UX-1604A2)					
22	8-598-331-00	TUNER (BT-AC401)					
		(KV-21M1A/21T1A/21M1E/21T1E/21M1K/21T1K)					
	1-693-310-11	TUNER (TELE4-002B)					
		(KV-21M1B/21T1B/21M1D/21T1D/21T1R)					
	1-693-302-11	TUNER (UV1315) (KV-21M1L/21T1L)					
	8-598-333-00	TUNER (BT-AU601) (KV-21M1U/21T1U)					
23	4-369-318-21	SPRING, TENSION					
		(KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D/21M1E/21T1E)					
	4-200-433-01	SPRING, EXTENSION					
		(KV-21M1K/21T1K/21M1L/21T1L/21T1R/21M1U/21T1U)					
24	*4-386-622-11	BAND, DGC					
		(KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D/21M1E/21T1E)					
	*4-386-622-04	BAND, DGC					
		(KV-21M1K/21T1K/21T1R/21M1U/21T1U)					
25	1-406-828-11	COIL, DEGAUSSING					
26	4-203-429-01	COVER (REAR)					
		(KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D/21M1E/21T1E)					
	4-203-437-01	COVER (REAR)					
		(KV-21M1K/21T1K/21T1R/21M1U/21T1U)					
27	4-308-870-00	CLIP, LEAD WIRE					
28	1-452-032-00	MAGNET, DISK; 10MM Ø					
29	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM Ø					
30	X-4387-214-1	PERMALLOY ASSY, CORRECTION					
31	3-701-007-00	BAND, BINDING					

SECTION 7

ELECTRICAL PARTS LIST

When indicating parts by reference number, please include the board name.

CAPACITORS

MF : mF, PF : mmF

COILS

MMH : mH, μ H : mH

A

• Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS

• All resistors are in ohms
• F : nonflammable

The components identified by shading and marked Δ are critical for safety.

Replace only with the part number specified.

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité.

Ne les remplacer que par une pièce portant le numéro spécifié.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
	*A-1632-484-A	A BOARD, COMPLETE (KV-21M1A) *****		C016	1-164-005-11	CERAMIC CHIP 0.47MF (KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D/ 21M1E/21T1E/21M1L/21T1L/21M1K/21T1K/ 21M1U/21T1U)	16V
	*A-1632-483-A	A BOARD, COMPLETE (KV-21T1A) *****					
	*A-1632-482-A	A BOARD, COMPLETE (KV-21M1B) *****		C017	1-164-005-11	CERAMIC CHIP 0.47MF (KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D/ 21M1E/21T1E/21M1L/21T1L/21M1K/21T1K/ 21M1U/21T1U)	16V
	*A-1632-481-A	A BOARD, COMPLETE (KV-21T1B) *****					
	*A-1632-487-A	A BOARD, COMPLETE (KV-21M1D) *****		C019	1-124-903-11	ELECT 1MF	20% 50V
	*A-1632-480-A	A BOARD, COMPLETE (KV-21T1D) *****		C020	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
	*A-1632-486-A	A BOARD, COMPLETE (KV-21M1E) *****		C021	1-163-059-00	CERAMIC CHIP 0.01MF	50V
	*A-1632-485-A	A BOARD, COMPLETE (KV-21T1E) *****		C022	1-124-903-11	ELECT 1MF	20% 50V
	*A-1632-477-A	A BOARD, COMPLETE (KV-21M1K) *****		C024	1-163-038-00	CERAMIC CHIP 0.1MF	25V
	*A-1632-478-A	A BOARD, COMPLETE (KV-21T1K) *****		C025	1-107-884-11	ELECT 1000MF	20% 16V
	*A-1632-475-A	A BOARD, COMPLETE (KV-21M1L) *****		C026	1-126-925-11	ELECT 470MF	20% 10V
	*A-1632-476-A	A BOARD, COMPLETE (KV-21T1L) *****		C027	1-163-038-00	CERAMIC CHIP 100000PF	25V
	*A-1632-479-A	A BOARD, COMPLETE (KV-21T1R) *****		C028	1-163-055-00	CERAMIC CHIP 0.0047MF	10% 50V
	*A-1632-474-A	A BOARD, COMPLETE (KV-21M1U) *****		C029	1-163-009-11	CERAMIC CHIP 1000PF	10% 50V
	*A-1632-473-A	A BOARD, COMPLETE (KV-21T1U) *****		C030	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
	4-201-023-11	SPACER, INSULATING		C031	1-163-009-11	CERAMIC CHIP 1000PF	5% 25V
	4-202-373-01	SPRING, IC		C034	1-136-157-00	FILM 0.022MF	5% 50V
	4-382-854-11	SCREW (M3X10), P, SW (+)		C036	1-164-222-11	CERAMIC CHIP 0.22MF	25V
	< CAPACITOR >			C101	1-164-005-11	CERAMIC CHIP 0.47MF	16V
C001	1-163-105-00	CERAMIC CHIP 33PF	5% 50V	C102	1-164-005-11	CERAMIC CHIP 0.47MF	16V
C002	1-163-105-00	CERAMIC CHIP 33PF	5% 50V	C103	1-164-005-11	CERAMIC CHIP 0.47MF	16V
C004	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C104	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C005	1-126-964-11	ELECT 10MF	20% 50V				
C006	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C106	1-164-326-91	CERAMIC CHIP MF	% V (KV-21M1K/21T1K/21T1R)
C007	1-130-777-00	FILM 0.1MF	5% 63V				
C008	1-126-965-11	ELECT 22MF	20% 50V	C107	1-164-326-91	CERAMIC CHIP MF	% V (KV-21M1K/21T1K/21T1R)
C010	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C109	1-163-038-00	CERAMIC CHIP 0.1MF	25V (KV-21M1B/21T1B)
C011	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C110	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V (KV-21M1B/21T1B)
C012	1-163-031-11	CERAMIC CHIP 10000PF	50V				
				C112	1-137-399-11	FILM 0.1MF	5% 50V (KV-21M1B/21T1B)
C014	1-163-038-00	CERAMIC CHIP 0.1MF	25V				
C015	1-126-964-11	ELECT 10MF	20% 50V	C114	1-136-169-00	FILM 0.22MF	5% 50V (KV-21M1A/21T1A/21M1D/21T1D/21M1E/21T1E/ 21M1K/21T1K/21M1L/21T1L/21T1R/21M1U/ 21T1U)
					1-136-165-00	FILM 0.1MF	5% 50V (KV-21M1B/21T1B)
				C116	1-124-925-11	ELECT 2.2MF	20% 50V (KV-21M1B/21T1B)

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C117	1-163-035-00	CERAMIC CHIP 0.047MF	50V	C314	1-163-077-00	CERAMIC CHIP 0.1MF	50V
C120	1-126-926-11	ELECT 1000MF 20% 10V (KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D)		C315	1-163-038-00	CERAMIC CHIP 0.1MF	25V
	1-126-925-11	ELECT 470MF 20% 10V (KV-21M1E/21T1E/21M1K/21T1K/21M1L/21T1L/ 21T1R/21M1U/21T1U)		C316	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C121	1-136-153-00	FILM 0.01MF 5% 50V		C317	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C122	1-164-665-11	CERAMIC CHIP 0.039MF 10% 50V		C318	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C123	1-163-105-00	CERAMIC CHIP 33PF 5% 50V		C319	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C124	1-164-665-11	CERAMIC CHIP 0.039MF 10% 50V		C320	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C126	1-126-967-11	ELECT 47MF 20% 16V		C321	1-126-963-11	ELECT 4.7MF 20% 50V	
C127	1-126-965-11	ELECT 22MF 20% 50V		C322	1-163-099-00	CERAMIC CHIP 18PF 5% 50V (KV-21M1K/21T1K/21T1R)	
C131	1-163-141-00	CERAMIC CHIP 0.001MF 5% 50V (KV-21M1K/21T1K/21T1R)		C323	1-163-163-00	CERAMIC CHIP 18PF 5% 50V	
C134	1-163-463-91	CERAMIC CHIP MF % V (KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D/ 21M1E/21T1E)		C324	1-163-119-00	CERAMIC CHIP 120PF 5% 50V	
C138	1-124-925-11	ELECT 2.2MF 20% 50V		C325	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C139	1-124-925-11	ELECT 2.2MF 20% 50V		C326	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C140	1-163-031-11	CERAMIC CHIP 0.01MF 50V		C327	1-163-005-11	CERAMIC CHIP 470PF 10% 50V	
C141	1-126-965-11	ELECT 22MF 20% 50V		C328	1-163-035-00	CERAMIC CHIP 0.047MF 50V	
C147	1-164-665-11	CERAMIC CHIP 0.039MF 10% 50V		C329	1-163-016-00	CERAMIC CHIP 0.0039MF 10% 50V	
C149	1-163-101-00	CERAMIC CHIP 22PF 5% 50V		C330	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C150	1-163-101-00	CERAMIC CHIP 22PF 5% 50V		C332	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C151	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V (KV-21M1K/21T1K/21M1L/21T1L/21T1R/21M1U/ 21T1U)		C333	1-163-033-91	CERAMIC CHIP 0.022MF 50V	
C152	1-126-964-11	ELECT 10MF 20% 50V		C335	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C153	1-163-097-00	CERAMIC CHIP 15PF 5% 50V (KV-21M1K/21T1K/21M1L/21T1L/21T1R/21M1U/ 21T1U)		C336	1-162-638-11	CERAMIC CHIP 1MF 16V	
C154	1-163-031-11	CERAMIC CHIP 0.01MF 50V		C337	1-162-638-11	CERAMIC CHIP 1MF 16V	
C155	1-163-038-00	CERAMIC CHIP 0.1MF 25V		C338	1-126-965-11	ELECT 22MF 20% 50V	
C157	1-163-038-00	CERAMIC CHIP 0.1MF 25V		C339	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C158	1-126-963-11	ELECT 4.7MF 20% 50V		C340	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C161	1-164-232-11	CERAMIC CHIP 0.01MF 50V (KV-21M1B/21T1B)		C341	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C162	1-126-967-11	ELECT 47MF 20% 16V		C344	1-126-967-11	ELECT 47MF 20% 50V	
C164	1-162-638-11	CERAMIC CHIP 1MF 16V (KV-21M1B/21T1B)		C345	1-163-139-00	CERAMIC CHIP 820PF 10% 50V	
C165	1-126-967-11	ELECT 47MF 20% 16V		C347	1-163-059-91	CERAMIC CHIP 0.01MF 10% 50V	
C166	1-126-933-11	ELECT 100MF 20% 10V (KV-21M1B/21T1B)		C348	1-163-031-11	CERAMIC CHIP 0.01MF 50V (KV-21M1B/21T1B)	
C168	1-163-205-00	CERAMIC CHIP 0.001MF 10% 50V		C349	1-126-965-11	ELECT 22MF 20% 50V (KV-21M1B/21T1B)	
C169	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V		C350	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C170	1-163-031-11	CERAMIC CHIP 0.01MF 50V		C353	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C200	1-163-059-00	CERAMIC CHIP 0.01MF 50V		C354	1-163-197-00	CERAMIC CHIP 470PF 10% 50V	
C300	1-126-934-11	ELECT 220MF 20% 16V		C355	1-163-059-11	CERAMIC CHIP 0.01MF 50V	
C301	1-163-077-00	CERAMIC CHIP 0.1MF 10% 25V		C358	1-164-232-11	CERAMIC CHIP 0.01MF 10% 100V	
C302	1-163-035-00	CERAMIC CHIP 0.047MF 50V		C359	1-126-964-11	ELECT 10MF 20% 50V	
C303	1-163-005-11	CERAMIC CHIP 470PF 10% 50V		C360	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
C304	1-163-059-91	CERAMIC CHIP 0.01MF 10% 50V		C401	1-126-967-11	ELECT 47MF 20% 16V	
C305	1-124-925-11	ELECT 2.2MF 20% 50V		C402	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
C306	1-136-164-00	FILM 0.082MF 5% 50V		C404	1-164-346-00	CERAMIC CHIP 1MF 16V	
C307	1-163-038-00	CERAMIC CHIP 0.1MF 25V		C405	1-164-222-11	CERAMIC CHIP 0.22MF 25V	
C308	1-164-232-11	CERAMIC CHIP 0.01MF 50V		C406	1-126-963-11	ELECT 4.7MF 20% 50V	
C309	1-126-963-11	ELECT 4.7MF 20% 50V		C407	1-104-666-11	ELECT 220MF 20% 25V	
C310	1-163-077-00	CERAMIC CHIP 0.1MF 10% 25V		C408	1-126-941-11	ELECT 470MF 20% 25V	
C312	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V		C409	1-163-005-11	CERAMIC CHIP 470PF 10% 50V	
C313	1-163-007-11	CERAMIC CHIP 0.0015MF 10% 50V		C410	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
				C412	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
				C413	1-126-963-11	ELECT 4.7MF 20% 50V	
				C414	1-216-295-00	METAL GLAZE 0 5% 1/10W	
				C415	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
				C417	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
				C501	1-126-963-11	ELECT 4.7MF 20% 50V	
				C502	1-163-077-00	CERAMIC CHIP 0.1MF 50V	
				C503	1-126-952-11	ELECT 1000MF 20% 35V	
				C504	1-126-968-11	ELECT 100MF 20% 50V	
				C505	1-126-941-11	ELECT 470MF 20% 25V	

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The components identified by shading and marked Δ are critical for safety.
Replace only with the part number specified.

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C506	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	CF102	1-409-327-00	TRAP, CERAMIC (6.5 MHz) (KV-14E1K/21T1K/21T1R)	
C507	1-124-903-11	ELECT 1MF	20% 50V	CF103	1-760-106-11	FILTER, CERAMIC (KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D/ 21M1E/21T1E/21M1K/21T1K/21T1R)	
C508	1-130-785-11	MYLAR 0.47MF	10% 100V		1-567-100-00	FILTER, CERAMIC (KV-21M1L/21T1L/21M1U/21T1U)	
C509	1-163-035-00	CERAMIC CHIP 0.047MF	50V	CF104	1-567-101-11	FILTER, CERAMIC (KV-14E1K/21T1K/21T1R)	
C510	1-163-011-11	CERAMIC CHIP 0.0015MF	10% 50V	CF105	1-760-154-11	TRAP, CERAMIC (KV-21M1B/21T1B/21M1U/21T1U)	
C600	1-126-967-11	ELECT 47MF	20% 50V	SWF101	1-579-120-11	FILTER, SURFACE WAVE (KV-21M1A/21T1A/21M1D/21T1D/21M1E/ 21T1E)	
C601 Δ	1-136-516-12	FILM 0.1MF	20% 300V		1-579-273-11	FILTER, SURFACE WAVE (KV-21M1B/21T1B)	
C602 Δ	1-136-516-12	FILM 0.1MF	20% 300V		1-579-414-11	FILTER, SURFACE WAVE (KV-21M1K/21T1K/21T1R)	
C603 Δ	1-161-964-91	CERAMIC 0.0047MF	250V		1-760-711-11	FILTER, SURFACE WAVE (KV-21M1L/21T1L/21M1U/21T1U)	
C604 Δ	1-161-964-91	CERAMIC 0.0047MF	250V	SWF102	1-760-722-11	FILTER, SURFACE WAVE (KV-21M1B/21T1B)	
C606	1-113-473-11	CAP, ELECT 180MF		< CONNECTOR >			
C607	1-104-666-11	ELECT 220MF	20% 25V	CN001	*1-564-508-11	PLUG, CONNECTOR 5P	
C608	1-126-964-11	ELECT 10MF	20% 50V	CN201	*1-564-506-11	PLUG, CONNECTOR 3P (KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D/ 21M1E/21T1E/21M1L/21T1L/21M1U/21T1U)	
C609	1-109-921-11	CERAMIC 0.0015MF	10% 500V		*1-564-507-11	PLUG, CONNECTOR 4P (KV-21M1D/21M1K/21T1K/21T1R)	
C610	1-104-665-11	ELECT 100MF	20% 25V	CN601 Δ	*1-580-844-11	PIN, CONNECTOR (POWER)	
C611	1-126-964-11	ELECT 10MF	20% 50V	CN602 Δ	1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P (KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D/ 21M1E/21T1E)	
C612 Δ	1-113-907-51	CERAMIC 0.0022MF	20% 250V	CN603 Δ	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
C613 Δ	1-113-907-51	CERAMIC 0.0022MF	20% 250V	CN801	*1-580-798-11	CONNECTOR PIN (DY) 6P	
C614	1-136-538-11	FILM 0.001MF	3% 2KV	CNA81	*1-568-881-51	PIN, CONNECTOR 6P	
C615	1-163-031-11	CERAMIC CHIP 0.01MF	50V	CNA82	*1-568-880-51	PIN, CONNECTOR 5P	
C618	1-162-116-00	CERAMIC 680PF	10% 2KV	< DIODE >			
C619	1-102-228-00	CERAMIC 470PF	10% 500V	D001	8-719-057-56	DIODE LS5360HL	
C620	1-124-347-00	ELECT 100MF	20% 160V	D002	8-759-157-40	DIODE μ PC574J	
C621	1-126-942-61	ELECT 1000MF	20% 25V	D003	8-719-109-89	DIODE RD5.6ESB2	
C622	1-111-041-11	ELECT 0.001F	20% 16V	D004	8-719-109-85	DIODE RD5.1ES-B2	
C625	1-163-081-00	CERAMIC CHIP 0.22MF	25V	D005	8-719-991-33	DIODE 1SS133T-77	
C626	1-104-661-91	ELECT 330MF	20% 16V	D006	8-719-991-33	DIODE 1SS133T-77	
C627	1-126-933-11	ELECT 100MF	20% 16V	D014	8-719-991-33	DIODE 1SS133T-77	
C628 Δ	1-161-964-91	CERAMIC 0.0047MF	250V	D100	8-719-991-33	DIODE 1SS133T-77	
C800	1-107-642-91	ELECT 3.3MF	20% 200V	D102	8-719-903-27	DIODE 1SS238-TPA7 (KV-21M1B/21T1B)	
C801	1-129-746-00	FILM 0.039MF	10% 400V	D104	8-719-903-27	DIODE 1SS238-TPA7 (KV-21M1B/21T1B)	
C803	1-136-109-00	FILM 0.68MF	5% 200V	D105	8-719-991-33	DIODE 1SS133T-77 (KV-21M1K/21T1K/21T1R)	
C804	1-124-902-00	ELECT 0.47MF	20% 50V	D106	8-719-991-33	DIODE 1SS133T-77 (KV-21M1K/21T1K/21T1R)	
C806	1-102-244-00	CERAMIC 220PF	10% 500V	D107	8-719-991-33	DIODE 1SS133T-77	
C807	1-107-651-11	ELECT 4.7MF	20% 250V	D109	8-719-820-71	DIODE 1SV214 (KV-21M1K/21T1K/21M1L/21T1L/21T1R/21M1U/ 21T1U)	
C808	1-136-079-00	FILM 0.01MF	3% 2KV	D301	8-719-991-33	DIODE 1SS133T-77	
C809	1-161-754-00	CERAMIC 0.001MF	10% 2KV	D302	8-719-991-33	DIODE 1SS133T-77	
C810	1-129-702-00	FILM 0.001MF	10% 400V	D305	1-249-412-11	CARBON 390 5% 1/4W	
C811	1-102-228-00	CERAMIC 470PF	10% 500V	D307	8-719-991-33	DIODE 1SS133T-77 (KV-21M1B/21T1B)	
C812	1-163-059-91	CERAMIC CHIP 0.01MF	10% 50V	D308	8-719-991-33	DIODE 1SS133T-77 (KV-21M1B/21T1B)	
C813	1-162-115-00	CERAMIC 330PF	10% 2KV	D310	8-719-991-33	DIODE 1SS133T-77	
C814	1-136-159-00	FILM 0.033MF	5% 50V				
C815	1-162-116-00	CERAMIC 680PF	10% 2KV				
C816	1-162-114-00	CERAMIC 0.0047MF	2KV				
C817	1-136-559-11	MYLAR 0.0047MF	10% 400V				
C818	1-136-933-11	FILM 1MF	5% 100V				
C819	1-162-318-11	CERAMIC 0.001MF	10% 500V				
C820	1-126-951-11	ELECT 470MF	20% 35V				
C822	1-104-696-11	FILM 0.015MF	10% 100V				
C823	1-106-375-12	MYLAR 0.022MF	10% 250V				
C824	1-106-367-00	MYLAR 0.01MF	10% 400V				
C827	1-164-182-11	CERAMIC CHIP 0.0033MF	10% 50V				
C828	1-124-903-11	ELECT 1MF	20% 50V				
< FILTER >							
CF101	1-404-801-11	TRAP, CERAMIC (KV-21M1A/21T1A/21M1D/21T1D/21M1E/21T1E/ 21M1K/21T1K/21T1R)					
	1-409-430-11	TRAP, CERAMIC (KV-21M1B/21T1B)					
	1-409-429-11	TRAP, CERAMIC (KV-21M1L/21T1L/21M1U/21T1U)					

Les composants identifiés par une trame et une marque sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
< TRANSISTOR >				JR011	1-216-295-00	METAL GLAZE 0 5% 1/10W	(KV-21M1B/21T1B)
Q001	8-729-922-66	TRANSISTOR 2SC2410SN		JR012	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q002	8-729-119-76	TRANSISTOR 2SA1175-HFE		JR013	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q005	8-729-920-74	TRANSISTOR 2SC2412K-QR		JR014	1-216-296-00	METAL GLAZE 0 5% 1/8W	
Q006	8-729-119-76	TRANSISTOR 2SA1175-HFE		JR015	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q007	8-729-119-78	TRANSISTOR 2SC2785-HFE		JR017	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q008	8-729-119-78	TRANSISTOR 2SC2785-HFE		JR018	1-216-296-00	METAL GLAZE 0 5% 1/8W	
Q009	8-729-119-78	TRANSISTOR 2SC2785-HFE		JR019	1-216-296-00	METAL GLAZE 0 5% 1/8W	
Q010	8-729-920-74	TRANSISTOR 2SC2412K-QR		JR021	1-216-296-00	METAL GLAZE 0 5% 1/8W	
Q011	8-729-900-89	TRANSISTOR DTC144ES		JR022	1-216-296-00	METAL GLAZE 0 5% 1/8W	
Q012	8-729-920-74	TRANSISTOR 2SC2412K-QR		JR023	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q013	8-729-920-74	TRANSISTOR 2SC2412K-QR		JR027	1-216-296-00	METAL GLAZE 0 5% 1/8W	
Q014	8-729-920-74	TRANSISTOR 2SC2412K-QR		JR028	1-216-296-00	METAL GLAZE 0 5% 1/8W	
Q015	8-729-920-74	TRANSISTOR 2SC2412K-QR		JR029	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q016	8-729-216-22	TRANSISTOR 2SC1162-G		JR030	1-216-296-00	METAL GLAZE 0 5% 1/8W	
Q100	8-729-901-01	TRANSISTOR DTC144EK		JR031	1-216-296-00	METAL GLAZE 0 5% 1/8W	
Q101	8-729-900-80	TRANSISTOR DTC114ES (KV-21M1B/21T1B)		JR032	1-216-296-00	METAL GLAZE 0 5% 1/8W	
Q102	8-729-900-80	TRANSISTOR DTC114ES (KV-21M1B/21T1B)		JR034	1-216-296-00	METAL GLAZE 0 5% 1/8W	
Q103	8-729-900-80	TRANSISTOR DTC114ES (KV-21M1B/21T1B)		JR035	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q105	8-729-901-01	TRANSISTOR DTC144EK		JW101	1-249-413-11	CARBON 470 5% 1/4W	
Q107	8-729-119-78	TRANSISTOR 2SC2785-HFE		R001	1-216-198-91	METAL GLAZE 1K 5% 1/8W	
Q109	8-729-022-54	TRANSISTOR 2SC3779C,D-AA	(KV-21M1B/21T1B)	R002	1-216-033-00	METAL GLAZE 2.2K 5% 1/10W	
Q111	8-729-900-89	TRANSISTOR DTC144ES	(KV-21M1K/21T1K/21T1R)	R005	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
Q112	8-729-119-78	TRANSISTOR 2SC2785-HFE		R006	1-216-089-00	METAL GLAZE 47K 5% 1/10W	(KV-21M1A/21T1A/21M1E/21T1E/21M1L/21T1L/21M1U/21T1U)
Q113	8-729-900-89	TRANSISTOR DTC144ES	(KV-21M1K/21T1K/21T1R)		1-216-085-00	METAL GLAZE 33K 5% 1/10W	(KV-21M1B/21T1B/21M1D/21T1D/21M1K/21T1K/21T1R)
Q114	8-729-901-01	TRANSISTOR DTC144EK		R008	1-216-031-00	METAL GLAZE 180 5% 1/10W	
Q115	8-729-026-41	TRANSISTOR 2SA933AS-RT (KV-21M1B/21T1B)		R009	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
Q116	8-729-900-89	TRANSISTOR DTC144ES (KV-21M1B/21T1B)		R010	1-216-041-00	METAL GLAZE 470 5% 1/10W	
Q300	8-729-900-80	TRANSISTOR DTC114ES		R011	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
Q301	8-729-119-78	TRANSISTOR 2SC2785-HFE		R012	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
Q302	8-729-900-80	TRANSISTOR DTC114ES		R013	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
Q303	8-729-900-80	TRANSISTOR DTC114ES		R014	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
Q304	8-729-900-80	TRANSISTOR DTC114ES		R015	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
Q305	8-729-900-80	TRANSISTOR DTC114ES		R016	1-216-025-00	METAL GLAZE 100 5% 1/10W	
Q306	8-729-900-80	TRANSISTOR DTC114ES		R017	1-216-025-00	METAL GLAZE 100 5% 1/10W	
Q307	8-729-026-41	TRANSISTOR 2SA933AS-RT (KV-21M1B/21T1B)		R018	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
Q308	8-729-901-01	TRANSISTOR DTC144EK	(KV-21M1B/21T1B/21M1D/21T1D/21M1K/21T1K/21T1R/21T1R)	R019	1-216-174-00	METAL GLAZE 100 5% 1/8W	
Q401	8-729-119-78	TRANSISTOR 2SC2785-HFE		R020	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
Q402	8-729-216-22	TRANSISTOR 2SA1162-G		R021	1-216-174-00	METAL GLAZE 100 5% 1/8W	
Q403	8-729-920-74	TRANSISTOR 2SC2412K-QR		R022	1-216-295-00	METAL GLAZE 0 5% 1/10W	
Q404	8-729-920-74	TRANSISTOR 2SC2412K-QR		R024	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
Q600	8-729-119-78	TRANSISTOR 2SC2785-HFE		R025	1-216-222-00	METAL GLAZE 10K 5% 1/8W	
Q602	8-729-900-65	TRANSISTOR DTA144ES		R026	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
Q801	8-729-140-96	TRANSISTOR 2SD774-34		R027	1-216-206-00	METAL GLAZE 2.2K 5% 1/8W	
Q802	8-729-033-85	TRANSISTOR S2000N-16E305A		R028	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
Q803	8-729-900-89	TRANSISTOR DTC144ES		R029	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
Q804	8-729-019-01	TRANSISTOR 2SD2394-EF		R030	1-215-900-11	METAL OXIDE 22K 5% 2W F	
Q805	8-729-119-78	TRANSISTOR 2SC2785-HFE		R031	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
< RESISTOR >				R032	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
JR003	1-216-296-00	METAL GLAZE 0 5% 1/8W		R033	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
JR004	1-216-296-00	METAL GLAZE 0 5% 1/8W		R034	1-249-429-11	CARBON 10K 5% 1/4W	
JR007	1-216-295-00	METAL GLAZE 0 5% 1/10W		R035	1-247-863-91	CARBON 22K 5% 1/4W	
JR008	1-216-295-00	METAL GLAZE 0 5% 1/10W		R036	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
JR009	1-216-295-00	METAL GLAZE 0 5% 1/10W		R037	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
				R039	1-216-089-00	METAL GLAZE 47K 5% 1/10W	

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REF.NO.	PART NO.	DESCRIPTION	REMARK
R040	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R042	1-216-230-00	METAL GLAZE 22K 5%	1/8W
R044	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R045	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R046	1-216-105-91	METAL GLAZE 220K 5%	1/10W
R047	1-216-077-00	METAL GLAZE 15K 5%	1/10W
R048	1-216-174-00	METAL GLAZE 100 5%	1/8W
R049	1-216-041-00	METAL GLAZE 470 5%	1/10W
R052	1-216-238-91	METAL GLAZE 47K 5%	1/8W
R055	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R060	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
R061	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R062	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R063	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
R064	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R065	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R066	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R067	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R068	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R069	1-247-863-91	CARBON 22K 5%	1/4W
R070	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R071	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R072	1-216-230-00	METAL GLAZE 22K 5%	1/8W
R073	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R074	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R075	1-249-436-11	CARBON 39K 5%	1/4W
R078	1-216-071-00	METAL GLAZE 8.2K 5%	1/10W
R079	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
R080	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R081	1-249-438-11	CARBON 56K 5%	1/4W
R088	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
R089	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
R090	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
R091	1-249-427-11	CARBON 6.8K 5%	1/4W
R093	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R094	1-216-085-00	METAL GLAZE 33K 5%	1/10W
R095	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R096	1-216-033-00	METAL GLAZE 220 5%	1/10W
R097	1-216-051-00	METAL GLAZE 1.2K 5%	1/10W
R098	1-216-051-00	METAL GLAZE 1.2K 5%	1/10W
R099	1-216-200-11	METAL GLAZE 1.2K 5%	1/8W
R102	1-216-234-00	METAL GLAZE 33K 5%	1/8W
R104	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W (KV-21M1B/21T1B)
R105	1-216-025-00	METAL GLAZE 100 5%	1/10W (KV-21M1B/21T1B)
R106	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W (KV-21M1B/21T1B)
R107	1-216-017-91	METAL GLAZE 47 5%	1/10W (KV-21M1B/21T1B)
R108	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W
R109	1-216-025-00	METAL GLAZE 100 5%	1/10W (KV-21M1B/21T1B)
R110	1-216-101-00	METAL GLAZE 150K 5%	1/10W
R111	1-216-085-00	METAL GLAZE 33K 5%	1/10W
R112	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W (KV-21M1B/21T1B)
R113	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W (KV-21M1B/21T1B)
R114	1-216-073-00	METAL GLAZE 10K 5%	1/10W (KV-21M1B/21T1B)

REF.NO.	PART NO.	DESCRIPTION	REMARK
R115	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W (KV-21M1B/21T1B)
R116	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R117	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R118	1-216-075-00	METAL GLAZE 12K 5%	1/10W
R122	1-216-029-00	METAL GLAZE 150 5%	1/10W
R123	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R124	1-216-025-00	METAL GLAZE 100 5%	1/10W
R125	1-216-025-00	METAL GLAZE 100 5%	1/10W
R126	1-216-025-00	METAL GLAZE 100 5%	1/10W
R127	1-216-180-00	METAL GLAZE 180 5%	1/8W
R128	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R133	1-249-429-11	CARBON 10K 5%	1/4W
R134	1-216-031-00	METAL GLAZE 180 5%	1/10W (KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D/ 21M1E/21T1E/21M1K/21T1K/21T1R)
	1-216-029-11	METAL GLAZE 150 5%	1/10W (KV-21M1L/21T1L/21M1U/21T1U)
R136	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
R137	1-216-109-00	METAL GLAZE 330K 5%	1/10W
R138	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R141	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R142	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R143	1-216-295-00	METAL GLAZE 0 5%	1/10W
R144	1-216-206-00	METAL GLAZE 2.2K 5%	1/8W (KV-21M1K/21T1K/21T1R)
R145	1-216-206-00	METAL GLAZE 2.2K 5%	1/8W (KV-21M1K/21T1K/21T1R)
R146	1-216-043-91	METAL GLAZE 560 5%	1/10W
R147	1-216-043-91	METAL GLAZE 560 5%	1/10W (KV-21M1K/21T1K/21T1R)
R149	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W (KV-21M1K/21T1K/21T1R)
R151	1-216-097-00	METAL GLAZE 100K 5%	1/10W (KV-21M1K/21T1K/21M1L/21T1L/21T1R/21M1U/ 21T1U)
R153	1-216-097-00	METAL GLAZE 100K 5%	1/10W (KV-21M1K/21T1K/21M1L/21T1L/21T1R/21M1U/ 21T1U)
R154	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R155	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R157	1-216-049-00	METAL GLAZE 1K 5%	1/10W (KV-21M1B/21T1B)
R158	1-216-039-00	METAL GLAZE 390 5%	1/10W (KV-21M1A/21T1A/21M1D/21T1D/21M1E/21T1E/ 21M1K/21T1K/21M1L/21T1L/21T1R/21M1U/ 21T1U)
	1-216-031-00	METAL GLAZE 180 5%	1/10W (KV-21M1B/21T1B)
R159	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
R160	1-216-238-91	METAL GLAZE 47K 5%	1/8W
R161	1-216-295-00	METAL GLAZE 0 5%	1/10W (KV-21M1A/21T1A/21M1D/21T1D/21M1E/21T1E/ 21M1K/21T1K/21M1L/21T1L/21T1R/21M1U/ 21T1U)
R162	1-216-017-91	METAL GLAZE 47 5%	1/10W (KV-21M1B/21T1B)
R163	1-249-407-11	CARBON 150 5%	1/4W
R167	1-216-246-00	METAL GLAZE 100K 5%	1/8W
R168	1-249-407-11	CARBON 150 5%	1/4W

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The components identified by shading and marked : are critical for safety.
Replace only with the part number specified.

Les composants identifiés par une trame et une marque : sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R169	1-216-073-00	METAL GLAZE 10K 5%	1/10W (KV-21M1B/21T1B)	R349	1-216-105-91	METAL GLAZE 220K 5%	1/10W (KV-21M1B/21T1B)
R170	1-216-063-00	METAL GLAZE 3.9K 5%	1/10W (KV-21M1B/21T1B)	R350	1-216-033-00	METAL GLAZE 220 5%	1/10W (KV-21M1B/21T1B)
R171	1-216-069-00	METAL GLAZE 6.8K 5%	1/10W (KV-21M1B/21T1B)	R351	1-216-292-11	METAL GLAZE 8.2M 5%	1/8W (KV-21M1B/21T1B/21M1D/21T1D/21M1K/21T1K/21T1R)
R175	1-216-049-00	METAL GLAZE 1K 5%	1/10W	R352	1-216-262-00	METAL GLAZE 470K 5%	1/8W
R176	1-216-049-00	METAL GLAZE 1K 5%	1/10W	R353	1-247-804-11	CARBON 75 5%	1/4W
R177	1-216-295-00	METAL GLAZE 0 5%	1/10W	R354	1-216-025-00	METAL GLAZE 100 5%	1/10W
R178	1-216-055-00	METAL GLAZE 1.8K 5%	1/10W	R355	1-216-121-91	METAL GLAZE 1M 5%	1/10W
R179	1-216-212-00	METAL GLAZE 3.9K 5%	1/8W	R356	1-216-119-00	METAL GLAZE 820K 5%	1/10W
R180	1-216-049-00	METAL GLAZE 1K 5%	1/10W (KV-21M1B/21T1B)	R357	1-216-095-00	METAL GLAZE 82K 5%	1/10W
R181	1-216-182-00	METAL GLAZE 220 5%	1/8W	R358	1-216-009-00	METAL GLAZE 22 5%	1/10W
R182	1-216-182-00	METAL GLAZE 220 5%	1/8W	R359	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R205	1-247-741-11	CARBON 150 5%	1/2W	R361	1-216-023-00	METAL GLAZE 82 5%	1/10W
R301	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R362	1-216-023-00	METAL GLAZE 82 5%	1/10W
R302	1-216-037-00	METAL GLAZE 330 5%	1/10W	R363	1-216-023-00	METAL GLAZE 82 5%	1/10W
R303	1-216-090-00	METAL GLAZE 51K 5%	1/10W	R401	1-216-041-00	METAL GLAZE 470 5%	1/10W
R304	1-216-025-00	METAL GLAZE 100 5%	1/10W	R402	1-249-431-11	CARBON 15K 5%	1/4W
R305	1-216-025-00	METAL GLAZE 100 5%	1/10W	R403	1-249-431-11	CARBON 15K 5%	1/4W
R306	1-216-113-00	METAL GLAZE 470K 5%	1/10W	R405	1-249-389-11	CARBON 4.7 5%	1/4W F
R307	1-216-121-91	METAL GLAZE 1M 5%	1/10W	R406	1-216-091-00	METAL GLAZE 56K 5%	1/10W
R308	1-216-234-00	METAL GLAZE 33K 5%	1/8W	R407	1-216-041-00	METAL GLAZE 470 5%	1/10W
R309	1-216-121-91	METAL GLAZE 1M 5%	1/10W	R408	1-216-033-00	METAL GLAZE 220 5%	1/10W
R310	1-216-089-00	METAL GLAZE 47K 5%	1/10W	R409	1-216-077-00	METAL GLAZE 15K 5%	1/10W
R311	1-216-093-00	METAL GLAZE 68K 5%	1/10W	R410	1-247-804-11	METAL GLAZE 75 5%	1/4W (KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D/21M1K/21T1K/21T1R)
R312	1-216-097-00	METAL GLAZE 100K 5%	1/10W		1-247-698-11	METAL GLAZE 68 5%	1/4W (KV-21M1L/21T1L/21M1U/21T1U)
R313	1-216-045-00	METAL GLAZE 680 5%	1/10W	R411	1-216-085-00	METAL GLAZE 33K 5%	1/10W
R314	1-216-045-00	METAL GLAZE 680 5%	1/10W	R412	1-216-105-91	METAL GLAZE 220K 5%	1/10W
R315	1-216-045-00	METAL GLAZE 680 5%	1/10W	R413	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R316	1-216-033-00	METAL GLAZE 220 5%	1/10W	R414	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R317	1-216-182-00	METAL GLAZE 220 5%	1/8W	R415	1-216-222-00	METAL GLAZE 10K 5%	1/8W
R318	1-216-019-00	METAL GLAZE 56 5%	1/10W	R416	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R322	1-216-022-00	METAL GLAZE 75 5%	1/10W	R417	1-216-295-00	METAL GLAZE 0 5%	1/10W
R323	1-216-089-00	METAL GLAZE 47K 5%	1/10W	R501	1-208-806-11	METAL CHIP 10K 0.50%	1/10W
R325	1-216-089-00	METAL GLAZE 47K 5%	1/10W	R502	1-216-677-11	METAL CHIP 12K 0.50%	1/10W
R326	1-216-095-00	METAL GLAZE 82K 5%	1/10W (KV-21M1B/21T1B/21M1D/21T1D/21M1K/21T1K/21T1R)	R503	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R327	1-216-097-00	METAL GLAZE 100K 5%	1/10W (KV-21M1B/21T1B/21M1D/21T1D/21M1K/21T1K/21T1R)	R504	1-216-095-00	METAL GLAZE 82K 5%	1/10W
R328	1-216-258-00	METAL GLAZE 330K 5%	1/8W	R505	1-216-075-00	METAL GLAZE 12K 5%	1/10W
R330	1-216-069-00	METAL GLAZE 6.8K 5%	1/10W	R506	1-216-080-00	METAL GLAZE 20K 5%	1/10W
R333	1-216-037-00	METAL GLAZE 330 5%	1/10W	R507	1-216-350-11	METAL OXIDE 1.2 5%	1W F
R334	1-216-025-71	METAL GLAZE 100 5%	1/10W	R508	1-215-865-11	METAL OXIDE 220 5%	1W F
R335	1-216-295-00	METAL GLAZE 0 5%	1/10W	R509	1-249-387-11	CARBON 3.3 5%	1/4W F
R336	1-216-296-00	METAL GLAZE 0 5%	1/8W	R600	1-216-365-00	METAL OXIDE 0.47 5%	2W F
R337	1-216-295-00	METAL GLAZE 0 5%	1/10W	R601	1-205-909-11	WIREWOUND 3.3 5%	10W
R339	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W	R603	1-215-858-11	METAL OXIDE 15 5%	1W F
R340	1-216-121-91	METAL GLAZE 1M 5%	1/10W	R604	1-215-927-00	METAL OXIDE 47K 5%	3W F
R341	1-216-093-00	METAL GLAZE 68K 5%	1/10W	R606	1-249-441-11	CARBON 100K 5%	1/4W
R342	1-216-186-00	METAL GLAZE 330 5%	1/8W	R607	1-216-366-00	METAL OXIDE 0.56 5%	2W F
R343	1-216-295-00	METAL GLAZE 0 5%	1/10W	R608	1-216-645-11	METAL CHIP 560 0.50%	1/10W
R344	1-216-295-00	METAL GLAZE 0 5%	1/10W	R609	1-215-859-00	METAL OXIDE 22 5%	1W F
R345	1-216-238-91	METAL GLAZE 47K 5%	1/8W	R610	1-249-419-11	CARBON 1.5K 5%	1/4W
R347	1-216-041-00	METAL GLAZE 470 5%	1/10W (KV-21M1B/21T1B)	R611	1-215-430-00	METAL 2.4K 1%	1/4W
R348	1-216-073-00	METAL GLAZE 10K 5%	1/10W (KV-21M1B/21T1B)	R612	1-202-719-91	SOLID 1M 10%	1/2W
				R614	1-218-265-21	METAL 8.2M 5%	1W
				R615	1-217-418-61	FUSIBLE 0.47 10%	1/2W F

The components identified by shading and marked Δ are critical for safety.
Replace only with the part number specified.

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

KV-21M1/21T1

A C

REF.NO.	PART NO.	DESCRIPTION	REMARK
R617	1-216-659-11	METAL CHIP 2.2K 0.50% 1/10W	
R618	1-216-659-11	METAL CHIP 2.2K 0.50% 1/10W	
R620	1-215-479-00	METAL 270K 1% 1/4W	
R621	1-249-429-11	CARBON 10K 5% 1/4W	
R622	1-247-895-91	METAL GLAZE 470K 5% 1/4W	
R623	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R624	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R625	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R626	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R627	1-216-346-00	METAL OXIDE 0.56 5% 1W F	
R630	1-249-401-11	CARBON 47 5% 1/4W	
R800	1-215-887-00	METAL OXIDE 150 5% 2W F	
R801	1-247-891-00	CARBON 330K 5% 1/4W	
R802	1-247-807-31	CARBON 100 5% 1/4W	
R803	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R804	1-217-778-11	FUSIBLE 1K 5% 1W F	
R806	1-216-349-00	METAL OXIDE 1 5% 1W F	
R807	1-249-399-11	METAL GLAZE 33 5% 1/10W	
R808	1-202-833-11	SOLID 18K 10% 1/2W	
R810	1-247-895-91	CARBON 470K 5% 1/4W	
R811	1-215-890-11	METAL OXIDE 470 5% 2W F	
R812	1-215-869-11	METAL OXIDE 1K 5% 1W F	
R813	1-216-266-00	METAL GLAZE 680K 5% 1/8W	
R814	1-249-443-11	CARBON 0.47 5% 1/4W F	
R815	1-216-250-00	METAL GLAZE 150K 5% 1/8W	
R816	1-216-369-00	METAL OXIDE 1 5% 2W F	
R817	1-216-447-00	METAL OXIDE 27 5% 2W F	
R818	1-202-813-00	SOLID 22K 10% 1/2W	
R819	1-249-441-11	CARBON 100K 5% 1/4W	
R820	1-249-935-11	CARBON 3.3K 5% 1/4W	
R821	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R822	1-216-107-00	METAL GLAZE 270K 5% 1/10W	
R823	1-249-413-11	CARBON 470 5% 1/4W F	
R824	1-216-125-00	METAL GLAZE 1.5K 5% 1/10W	
R825	1-216-105-91	METAL GLAZE 220K 5% 1/10W	
R828	1-216-115-00	METAL GLAZE 560K 5% 1/10W	
R834	1-215-869-11	METAL OXIDE 1K 5% 1W F	
R835	1-249-413-11	CARBON 470 5% 1/4W F	
< VARIABLE RESISTOR >			
RV102	1-241-765-11	RES, ADJ, METAL GLAZE 22K (KV-21M1B/21T1B)	
RV801	1-241-630-11	RES, ADJ, CARBON 10K	
< SWITCH >			
S001	1-571-532-21	SWITCH, TACTIL	
S002	1-571-532-21	SWITCH, TACTIL	
S003	1-571-532-21	SWITCH, TACTIL	
S004	1-571-532-21	SWITCH, TACTIL	
S005	1-571-532-21	SWITCH, TACTIL	
S006	1-571-532-21	SWITCH, TACTIL	
S601	Δ 1-571-433-21	SWITCH, PUSH (AC POWER)	
< TRANSFORMER >			
T601	Δ 1-427-962-11	TRANSFORMER, LINE FILTER	
T602	Δ 1-429-207-11	TRANSFORMER, CONVERTER	
T801	1-437-090-31	HDT	
T802	Δ 1-453-199-11	TRANSFORMER ASSY, FLYBACK (NX-1741/U2E)	

REF.NO.	PART NO.	DESCRIPTION	REMARK
< THERMISTOR >			
THP601	Δ 1-808- 300 -31	THERMISTOR (POSITIVE)	
	OS9		
< TUNER >			
TU101	8-598-331-00	TUNER (BT-AC401)	
		(KV-21M1A/21T1A/21M1E/21T1E/21M1K/21T1K)	
	1-693-310-11	TUNER (TELE4-002E)	
		(KV-21M1B/21T1B/21M1D/21T1D/21T1R)	
	1-693-302-11	TUNER (UV1315) (KV-21M1L/21T1L)	
	8-598-333-00	TUNER (BT-AU601) (KV-21M1U/21T1U)	
< CRYSTAL >			
X001	1-578-774-11	VIBRATOR, CRYSTAL	
X301	1-760-907-21	VIBRATOR, CRYSTAL (KV-21M1K/21T1K/21T1R)	
X302	1-760-710-21	VIBRATOR, CRYSTAL	

*A-1638-074-A C BOARD, COMPLETE			

< CAPACITOR >			
C701	1-102-074-00	CERAMIC 0.001MF 10% 50V	
C702	1-102-117-00	CERAMIC CHIP 820PF 10% 50V	
C703	1-102-117-00	CERAMIC CHIP 820PF 10% 50V	
C704	1-102-824-00	CERAMIC CHIP 470PF 5% 50V	
C705	1-102-824-00	CERAMIC CHIP 470PF 5% 50V	
C706	1-102-824-00	CERAMIC CHIP 470PF 5% 50V	
C707	1-107-651-11	ELECT 4.7MF 20% 250V	
C709	1-162-114-00	CERAMIC 0.0047MF 2KV	
C710	1-126-967-11	ELECT 47MF 20% 16V	
C711	1-101-880-00	CERAMIC 47PF 5% 50V	
C712	1-101-880-00	CERAMIC 47PF 5% 50V	
C713	1-101-880-00	CERAMIC 47PF 5% 50V	
< CONNECTOR >			
CNC71	*1-568-881-51	PIN, CONNECTOR 6P	
CNC72	*1-568-880-51	PIN, CONNECTOR 5P	
CNC73	1-695-915-21	TAB (CONTACT)	
CNC76	1-695-915-21	TAB (CONTACT)	
< DIODE >			
D701	8-719-991-33	DIODE 1SS133T-77	
D702	8-719-991-33	DIODE 1SS133T-77	
D703	8-719-991-33	DIODE 1SS133T-77	
D704	8-719-991-33	DIODE 1SS133T-77	
D705	8-719-991-33	DIODE 1SS133T-77	
D706	8-719-991-33	DIODE 1SS133T-77	
D707	8-719-991-33	DIODE 1SS133T-77	
D708	8-719-991-33	DIODE 1SS133T-77	
D709	8-719-991-33	DIODE 1SS133T-77	
D716	8-719-991-33	DIODE 1SS133T-77	
D717	8-719-054-81	DIODE 1SS292	
D718	8-719-991-33	DIODE 1SS133T-77	
D719	8-719-054-81	DIODE 1SS292	
D723	8-719-991-33	DIODE 1SS133T-77	
D724	8-719-054-81	DIODE 1SS292	
< CRT SOCKET >			
J701	Δ 1-526-990-21	SOCKET, CRT	

C

The components identified by shading and marked : are critical for safety.
Replace only with the part number specified.

Les composants identifiés par une trame et une marque : sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
< TRANSISTOR >				MISCELLANEOUS *****			
Q701	8-729-119-78	TRANSISTOR 2SC2785-HFE		△ 1-406-828-11	COIL, DEGAUSSING		
Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE		1-452-032-00	MAGNET, DISC; 10MM Ø		
Q703	8-729-119-78	TRANSISTOR 2SC2785-HFE		1-452-094-00	MAGNET, ROTATABLE DISK; 15MM Ø		
Q704	8-729-906-70	TRANSISTOR BF871-127		1-452-277-00	MAGNET, BMC		
Q705	8-729-906-70	TRANSISTOR BF871-127		△ 1-453-169-11	TRANSFORMER ASSY, FLYBACK (UX-1604A2)		
Q706	8-729-906-70	TRANSISTOR BF871-127		1-503-258-21	SPEAKER (KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D/ 21M1E/21T1E/21M1L/21T1L/21M1U/21T1U)		
Q707	8-729-200-17	TRANSISTOR 2SA1091-0		1-504-899-11	SPEAKER (9X5CM) (KV-21M1K/21T1K/21T1R)		
Q708	8-729-200-17	TRANSISTOR 2SA1091-0		△ 1-540-006-22	CAP ASSY, HIGH-VOLTAGE		
Q709	8-729-200-17	TRANSISTOR 2SA1091-0		△ 1-571-433-21	SWITCH, PUSH (AC POWER)		
< RESISTOR >				△ 1-690-270-21	CORD, POWER (WITH CONNECTOR) 2.5A/250V (KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D/ 21M1E/21T1E/21M1L/21T1L/21M1U/21T1U)		
R700	1-260-087-81	CARBON	100 5% 1/2W	△ 1-590-762-11	CORD, POWER (WITH PLUG) 2.5A/250V (KV-21M1L/21T1L/21M1U/21T1U)		
R701	1-249-417-11	CARBON	1K 5% 1/4W	8-598-331-00	TUNER (BT-AC401) (KV-21M1A/21T1A/21M1E/21T1E/21M1K/21T1K)		
R702	1-249-417-11	CARBON	1K 5% 1/4W	1-693-310-11	TUNER (TELE4-002B) (KV-21M1B/21T1B/21M1D/21T1D/21T1R)		
R705	1-247-791-91	CARBON	22 5% 1/4W	1-693-302-11	TUNER (UV1315) (KV-21M1L/21T1L)		
R706	1-247-791-91	CARBON	22 5% 1/4W	8-598-333-00	TUNER (BT-AU601) (KV-21M1U/21T1U)		
R707	1-247-791-91	CARBON	22 5% 1/4W	△ 8-738-786-71	ITC		
R708	1-247-815-91	CARBON	220 5% 1/4W	△ 8-451-295-45	DEFLECTION YOKE (Y21PFA2BA)		
R709	1-247-815-91	CARBON	220 5% 1/4W	V901 △ 8-738-784-05	PICTURE TUBE (SD-169) (A51JXH61X)		
R710	1-247-815-91	CARBON	220 5% 1/4W	*****			
R711	1-249-417-11	CARBON	1K 5% 1/4W				
R714	1-249-417-11	CARBON	1K 5% 1/4W				
R715	1-249-417-11	CARBON	1K 5% 1/4W				
R716	1-249-417-11	CARBON	1K 5% 1/4W				
R717	1-247-758-11	CARBON	3.3K 5% 1/2W				
R718	1-247-758-11	CARBON	3.3K 5% 1/2W				
R719	1-247-758-11	CARBON	3.3K 5% 1/2W				
R720	1-216-487-11	METAL OXIDE	12K 5% 3W F				
R721	1-216-487-11	METAL OXIDE	12K 5% 3W F				
R722	1-216-487-11	METAL OXIDE	12K 5% 3W F				
R724	1-202-814-91	SOLID	33K 10% 1/2W				
R725	1-202-846-00	SOLID	470K 10% 1/2W				
R726	1-202-844-00	SOLID	330K 10% 1/2W				
R727	1-202-848-00	SOLID	680K 10% 1/2W				
R729	1-216-348-00	METAL OXIDE	0.82 5% 1W F				
R734	1-247-815-91	CARBON	220 5% 1/4W				
R735	1-247-815-91	CARBON	220 5% 1/4W				
R736	1-247-815-91	CARBON	220 5% 1/4W				
R744	1-247-756-11	CARBON	2.2K 5% 1/2W				
R745	1-247-756-11	CARBON	2.2K 5% 1/2W				
R746	1-247-756-11	CARBON	2.2K 5% 1/2W				
< VARIABLE RESISTOR >							
RV701	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M					
RV702	1-241-656-21	RES, ADJ, METAL GLAZE 110M					

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
ACCESSORIES AND PACKING MATERIALS *****							
1-770-783-11		CONNECTOR, CONVERSION (KV-21M1K/21T1K/21T1R)					
4-203-438-41		MANUAL, INSTRUCTION (KV-21M1A/21T1A) (ITALIAN)					
4-203-438-51		MANUAL, INSTRUCTION (KV-21M1B/21T1B) (FRENCH/ITALIAN/GERMAN/DUTCH)					
4-203-438-11		MANUAL, INSTRUCTION (KV-21M1D/21T1D) (ENGLISH/DANISH/SWEDISH/FINNISH/ GREEK/DUTCH/TURKISH/NORWEGIAN)					
4-203-439-11		MANUAL, INSTRUCTION (KV-21M1D/21T1D) (GERMAN/ENGLISH)					
4-203-438-71		MANUAL, INSTRUCTION (KV-21M1E/21T1E) (SPANISH)					
4-203-438-81		MANUAL, INSTRUCTION (KV-21M1E/21T1E) (PORTUGUESE/SPANISH)					
4-203-440-91		MANUAL, INSTRUCTION (KV-21M1K/21T1K) (HUNGARIAN/POLISH/CZECH/ENGLISH/ RUSSIAN/BULGARIAN)					
4-203-438-61		MANUAL, INSTRUCTION (KV-21M1L/21T1L/21M1U/21T1U) (ENGLISH)					
4-203-441-91		MANUAL, INSTRUCTION (KV-21T1R) (RUSSIAN/BULGARIAN/ENGLISH)					
*4-042-477-01		BAG, PROTECTION (KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D/ 21M1E/21T1E)					
*4-039-905-02		BAG, PROTECTION (KV-21M1K/21T1K/21M1L/21T1L/21T1R/21M1U/ 21T1U)					
*4-203-447-01		INDIVIDUAL CARTON (KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D/ 21M1E/21T1E)					
*4-203-477-11		INDIVIDUAL CARTON (KV-21M1K/21T1K/21M1L/21T1L/21T1R)					
*4-203-446-01		INDIVIDUAL CARTON (KV-21M1U/21T1U)					
*4-203-444-01		CUSHION (LOWER) (ASSY) (KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D/ 21M1E/21T1E)					
*4-203-444-11		CUSHION (LOWER) (ASSY) (KV-21M1K/21T1K/21M1L/21T1L/21T1R/21M1U/ 21T1U)					
*4-203-445-01		CUSHION (UPPER) (ASSY) (KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D/ 21M1E/21T1E)					
*4-203-445-11		CUSHION (UPPER) (ASSY) (KV-21M1K/21T1K/21M1L/21T1L/21T1R/21M1U/ 21T1U)					
REMOTE COMMANDER *****							
1-473-194-11		COMMANDER, STANDARD TYPE (RM-836)					

SERVICE MANUAL

BE-4A CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-21M1A	RM-836	Italian	SCC-J05E-A	KV-21M1K	RM-836	OIRT	SCC-J03J-A
KV-21T1A	RM-836	Italian	SCC-J05D-A	KV-21T1K	RM-836	OIRT	SCC-J03G-A
KV-21M1B	RM-836	French	SCC-J06G-A	KV-21M1L	RM-836	Irish	SCC-J02D-A
KV-21T1B	RM-836	French	SCC-J06F-A	KV-21T1L	RM-836	Irish	SCC-J02C-A
KV-21M1D	RM-836	AEP	SCC-J08F-A	KV-21T1R	RM-836	OIRT	SCC-J03H-A
KV-21T1D	RM-836	AEP	SCC-J08E-A	KV-21M1U	RM-836	UK	SCC-J01E-A
KV-21M1E	RM-836	Spanish	SCC-J04F-A	KV-21T1U	RM-836	UK	SCC-J01D-A
KV-21T1E	RM-836	Spanish	SCC-J04E-A				

SUPPLEMENT - 1

SUBJECT : CHANGE OF PART NUMBER

File this supplement with the service manual

INTRODUCTION : Change of Part Number due to Beznet Assy

NOTE: This Supplement applies to the following models:-
KV-21M1K, KV-21T1K, KV-21T1R

- SECTION 5 DIAGRAMS**

(A board, Page 31) See page 2

(C board, Page 35) See page 5

- SECTION 6 EXPLODED VIEWS**

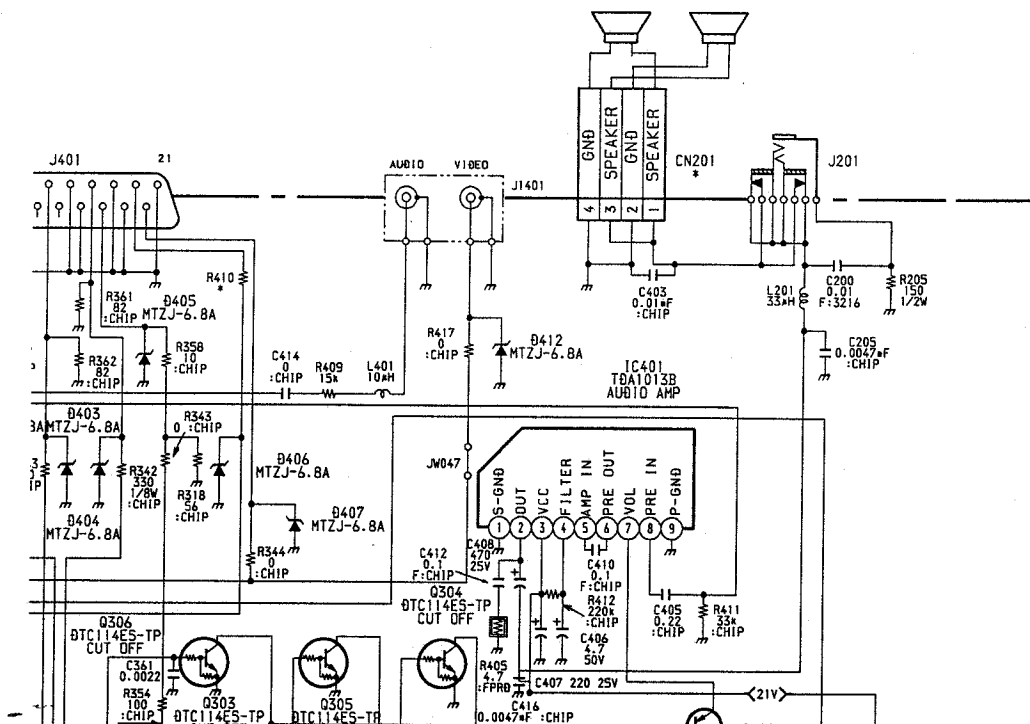
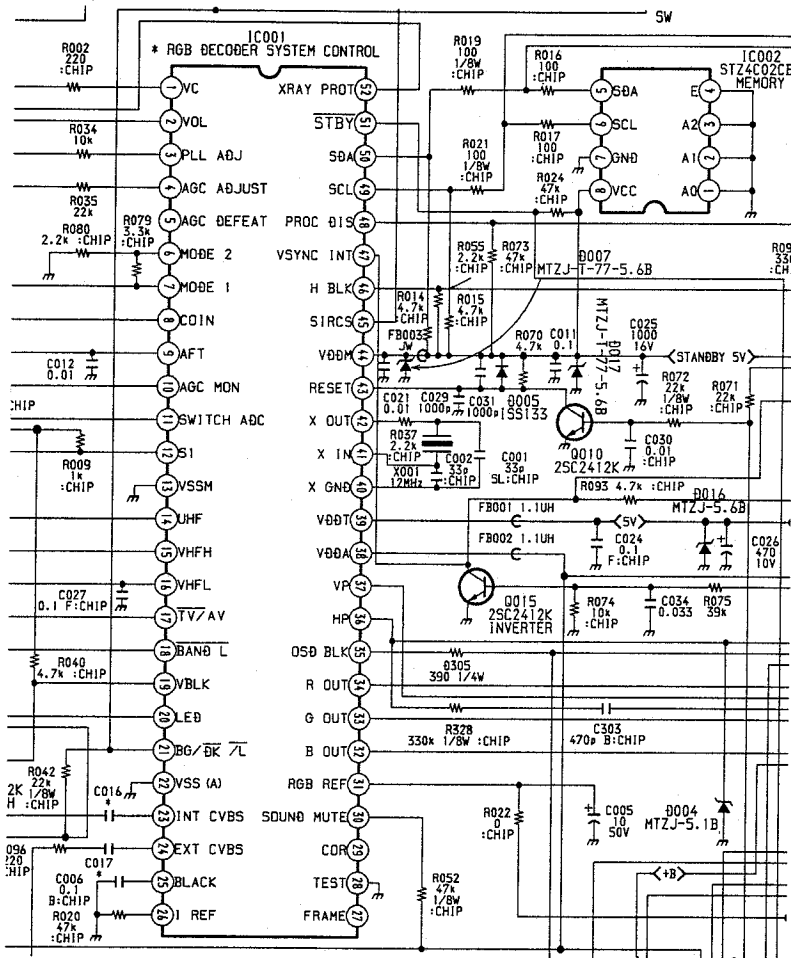
6-1. CHASSIS (Page 38) See page 6

- SECTION 7 ELECTRICAL PARTS LIST (Page 40) See page 7**



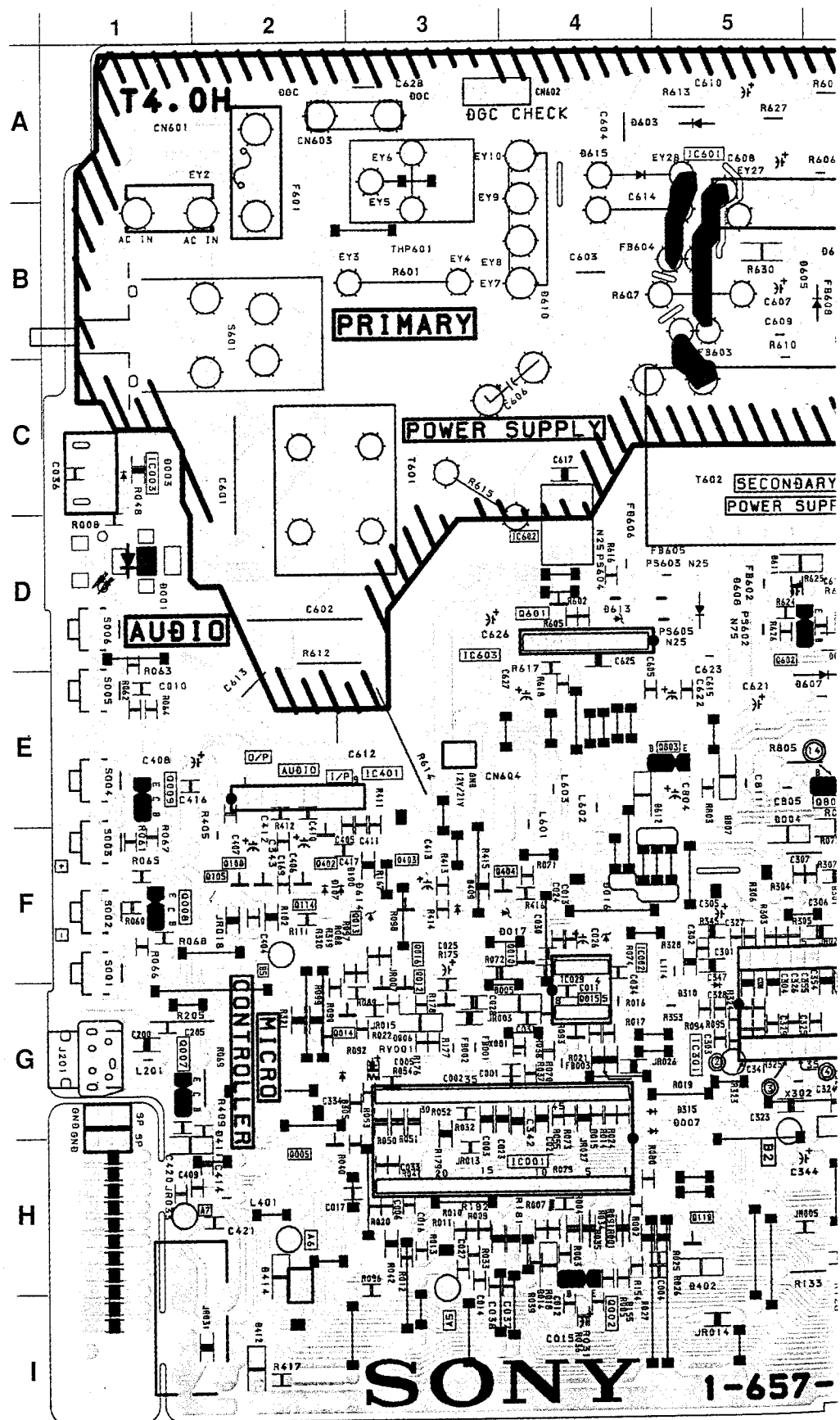
TRINITRON® COLOR TV
SONY®

- A Board -



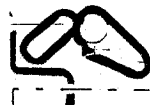
SYSTEM CONTROL, HORIZONTAL OUTPUT,
VERTICAL OUTPUT, CHROMINANCE,
POWER, AUDIO

- A Board -



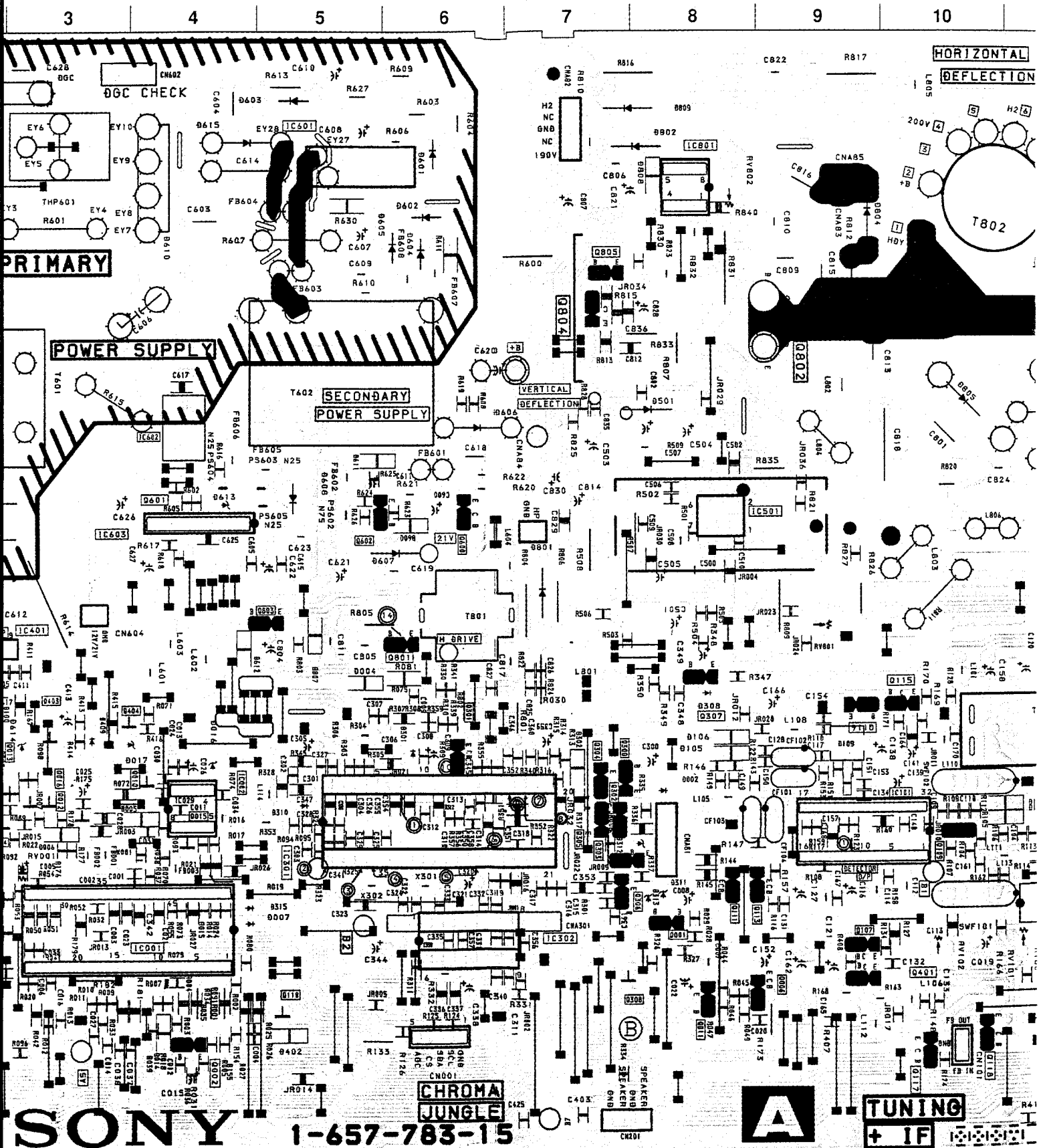
KV-21M1/21T1

KV-21M1/21T1

HORIZONTAL OUTPUT,
MINANCE,

NOTE:

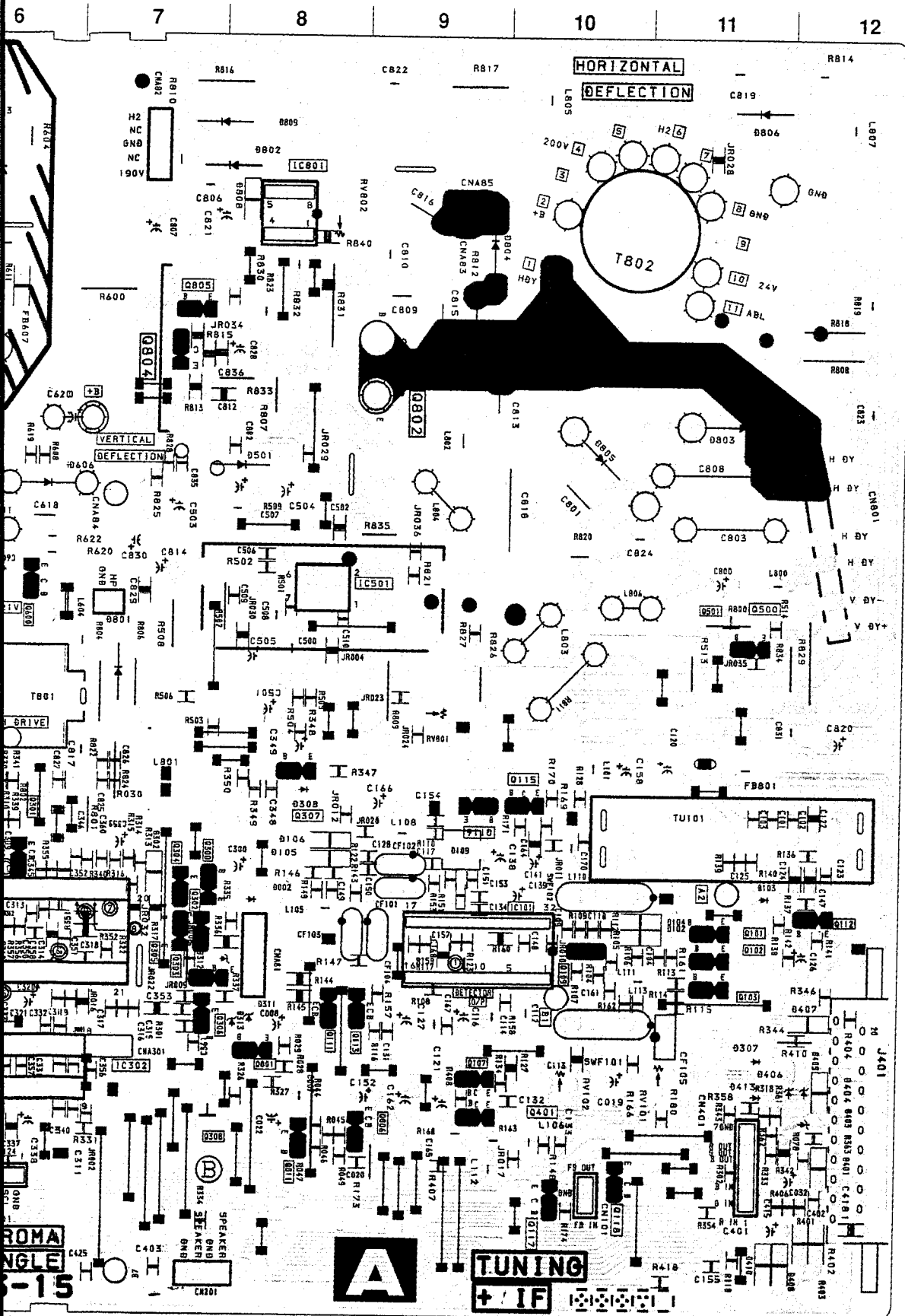
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.





NOTE:

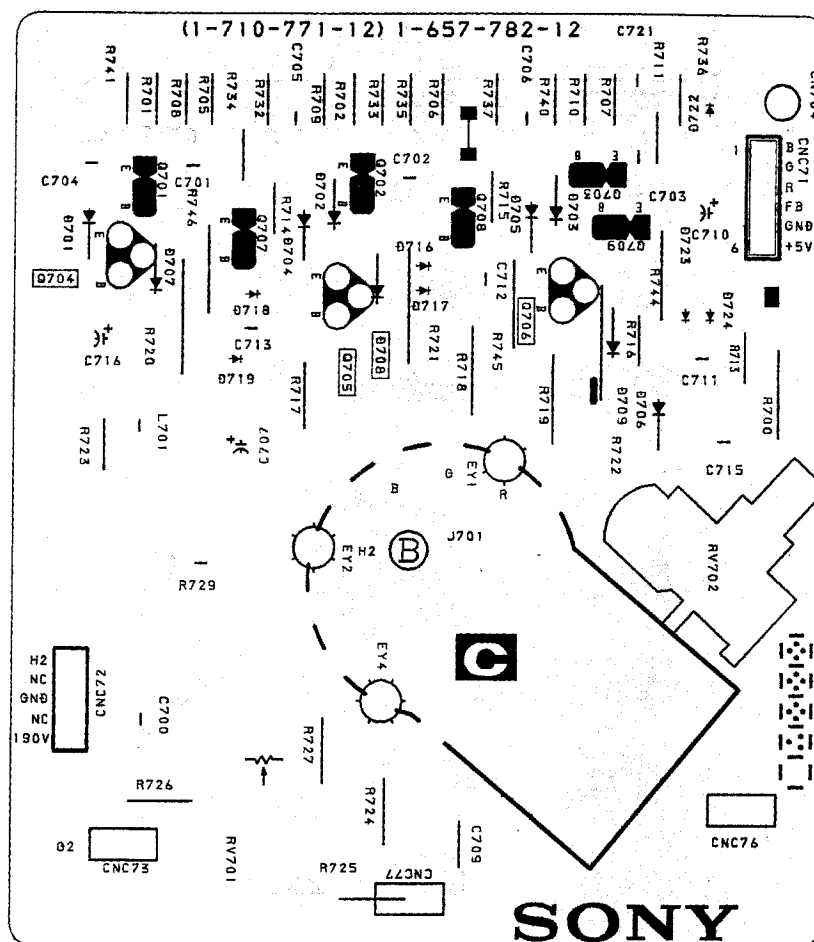
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.



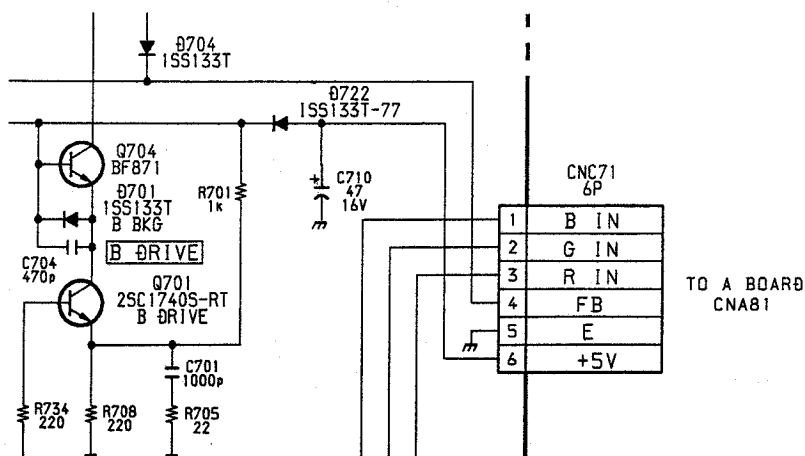
C

[R,G,B OUT]

- C Board -



- C Board -



SECTION 6

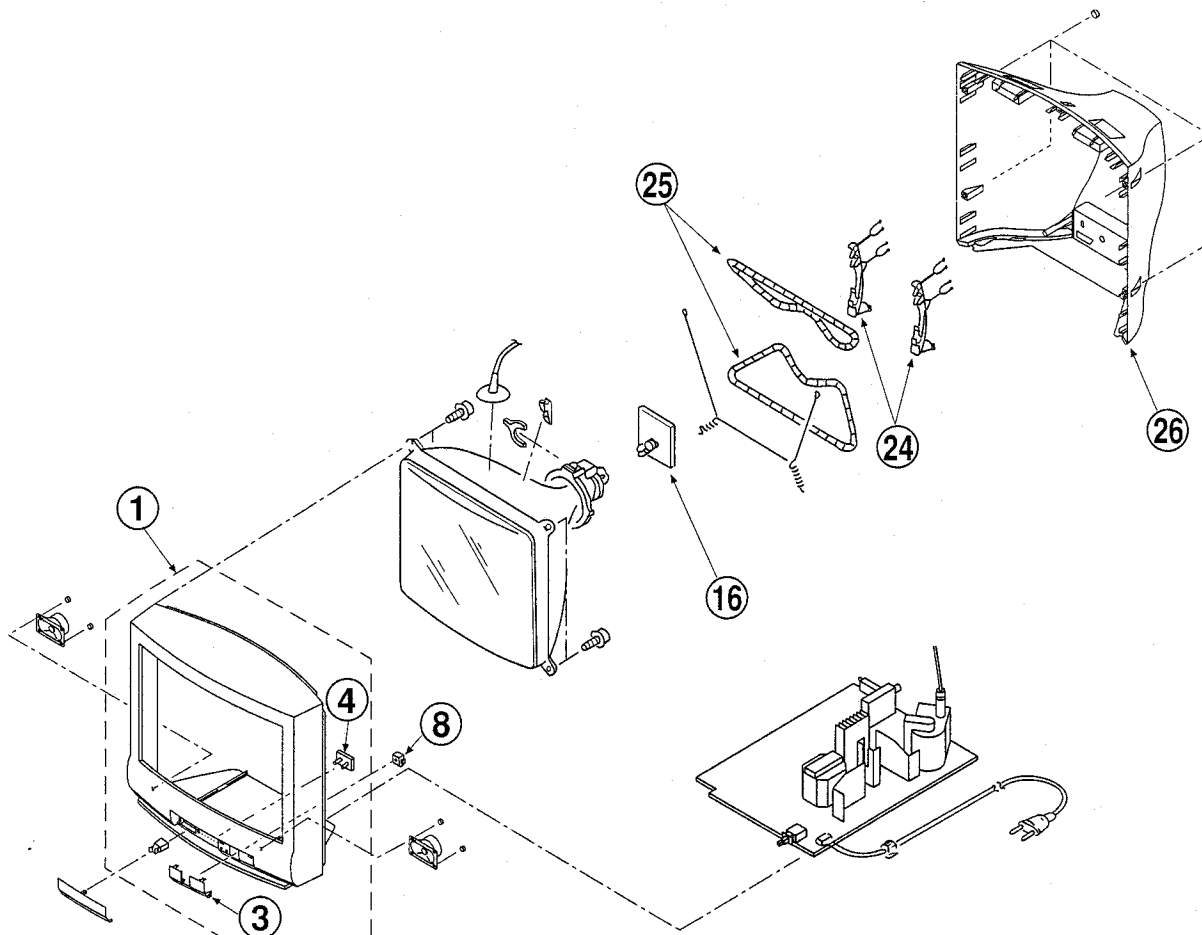
EXPLODED VIEWS

NOTE :

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and marked 1 are critical for safety.
Replace only with the part number specified.

Les composants identifiés par une trame et une marque 1 sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

6-1. CHASSIS

REF NO	PART NO	DESCRIPTION	REMARK	REF NO	PART NO	DESCRIPTION	REMARK
1	X-4200-267-2	BEZNET ASSY					
3	4-203-432-11	WINDOW					
4	*4-203-431-11	GUIDE, LIGHT					
8	4-203-433-11	BUTTON, POWER					
16	*A-1638-068-A	C BOARD, COMPLETE					
24	*4-386-622-01	BAND, DGC					
25	1-406-612-11	COIL, DEGAUSSING					
26	4-203-437-02	COVER (REAR)					

SECTION 7

ELECTRICAL PARTS LIST

When indicating parts by reference number, please include the board name.

CAPACITORS

MF : mF, PF : mmF

COILS

MMH : mH, μ H : mH

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS

- All resistors are in ohms
- F : nonflammable

REF NO	PART NO	DESCRIPTION	REMARK	REF NO	PART NO	DESCRIPTION	REMARK
*A BOARD, COMPLETE *****				*A-1638-068-A C BOARD, COMPLETE *****			
< CAPACITOR >				< DIODE >			
C016	NOT USED	(KV-21M1K)		D722	8-719-991-33	DIODE ISS133T-77	
C017	NOT USED	(KV-21M1K)		< RESISTOR >			
C034	1-130-489-00	FILM 0.033MF 20% 50V		R724	1-260-117-11	CARBON 33K 10% 1/2W	
C106	NOT USED			*****			
C107	NOT USED						
C205	1-163-017-00	CERAMIC CHIP 0.0047MF 5% 50V					
C361	1-164-161-11	CERAMIC CHIP 0.0022MF 5% 50V					
C403	1-163-031-11	CERAMIC CHIP 0.01MF 5% 50V					
C409	NOT USED						
C416	1-163-017-00	CERAMIC CHIP 0.0047MF 5% 50V					
< FILTER >							
CF102	1-409-327-00	TRAP, CERAMIC (KV-21M1K)					
< DIODE >							
D007	8-719-109-89	DIODE MTZJ-T-77-5.6B					
D016	8-719-109-89	DIODE MTZJ-T-77-5.6B					
D017	8-719-109-89	DIODE MTZJ-T-77-5.6B					
< IC >							
IC001	8-759-452-21	IC SAA5290ZP/052 (KV-21TIK)					
	8-759-452-19	IC SAA5288ZP/024 (KV-21MIK)					
	8-759-452-20	IC SAA5290ZP/054 (KV-21TIR)					
IC002	8-759-251-04	IC ST24C02FB6					
IC003	8-742-014-10	IC SBX1981-51					
< RESISTOR >							
JW101	NOT USED						
R122	1-216-025-00	METAL GLAZE 100 5% 1/10W					
R143	NOT USED	(KV-21T1K, KV-21M1K)					
R318	1-216-021-00	METAL GLAZE 68 5% 1/10W					
R358	1-216-001-00	METAL GLAZE 10 5% 1/10W					
R401	1-216-049-00	METAL GLAZE 1K 5% 1/10W					
R808	1-260-114-11	CARBON 18K 1/2W					
R818	1-260-115-11	CARBON 22K 1/2W					